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Barrier-Free® Examination Table

Model Numbers:

222 -001 thru -017

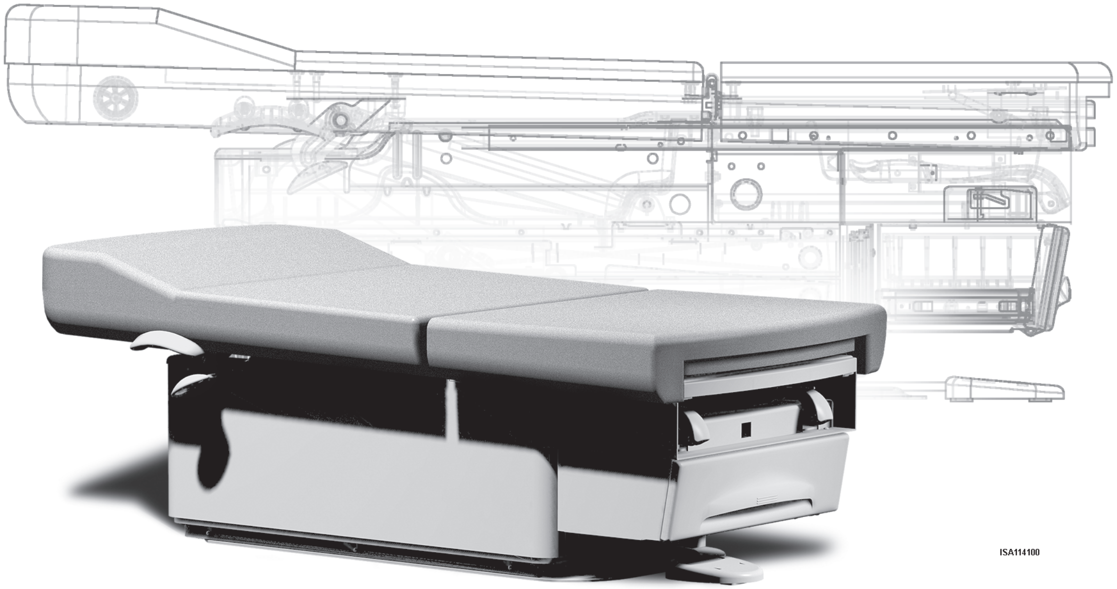
223 -001 thru -016

622 -001 thru -008

623 -001 thru -011

Some Models NO LONGER IN PRODUCTION
Some service parts may not be available for this product!

Service and Parts Manual



FOR USE BY MIDMARK TRAINED TECHNICIANS ONLY

SF-1822

Part No. 004-0363-00 Rev. 6/29/17

Style B

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OPERATION & TROUBLESHOOTING

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**** Indicates multiple pages due to model / serial number break(s)***

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Symbols

Caution
Indicates a potentially hazardous situation which could result in injury if not avoided.

Equipment Alert
Indicates a potentially hazardous situation which could result in equipment damage if not avoided.

Note
Amplifies a procedure, practice, or condition.

✓ In Section A, test the components in the order indicated.
(ex. ***1st*** ✓ then, ***2nd*** ✓)

Refer to Section B for component testing procedures.

These symbols are used throughout this manual to represent the operational status of table functions and components.

Indicates the function / component is working properly.
No action required.

Indicates the function / component is working,
but a problem exists.

Indicates the function / component is not working at all.

Ordering Parts

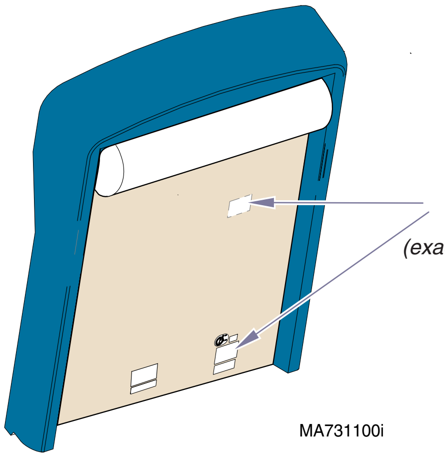
The following information is required when ordering parts:

- Serial number & model number
- Part number for desired part.
  [Refer to Exploded Views / Parts Lists section]

Non-warranty part orders may be faxed to Midmark using the Fax Order Form in the back of this manual.

For warranty part orders, call Midmark's Technical Service Department with the required information.
Hours: 8:00 am until 5:00 pm EST [Monday - Friday]
Phone: 1-(800)-Midmark

Serial Number Location



Serial / Model Number Label
(exact location may vary)

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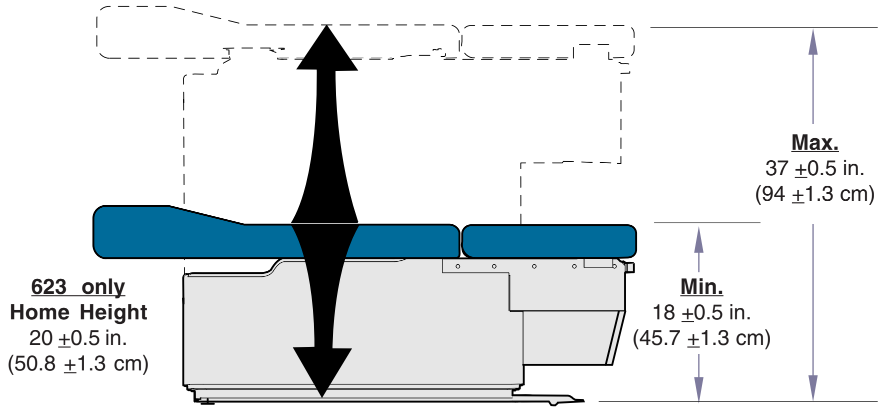
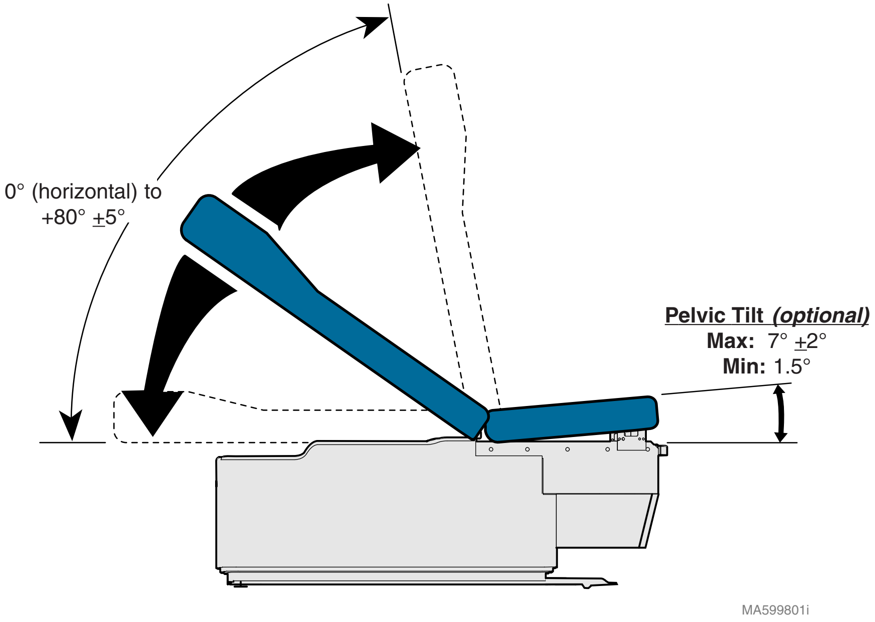
General Information

Specifications

Patient Weight (maximum)	400 lbs (181.4 kgs)
Paper Roll (maximum size):	21 in. long x 3.5 in. diameter (53.3 x 8.9 cm)
Export models	19.7 in. long x 4.7 in. diameter (50 cm x 12 cm)
Range of Motion	*See illustration on this page*
Dimensions	*See illustration on next page*
Weight of Table:	
[230 VAC models only: 230 V transformer adds 14.5 lbs (6.5 kg)]	
w/ upholstery	325 lbs (147.4 kg)
w/packaging & skid *(no upholstery)*	375 lbs (192.7 kg)
Weight of Upholstery:	
w/packaging *(shipped separately)*	40 lbs (18.1 kg)
Power Cord(s) *[115V models have two cords]*:	8 ft. (243.8 cm) long
Electrical Rating:	*See Compliance Charts*
Foot Control Voltage:	14 VAC, SELV (Safety Extra Low Voltage)
Duplex Receptacle maximum load:	115 VAC, 5A
Fuses:	Refer to: *Section E - Fuses*
Duty Cycle:	
Actuator motor run time:	Intermittent Operation (Domestic: 30 seconds ON / 5 minutes OFF) (Export: 25 seconds ON / 7 minutes OFF)
Receptacle / Drawer Heater / Uph. Htr:	Continuous Operation
Classifications:	Class I, Type B Applied Part, Ordinary Equipment, Intermittent Operation (Domestic: 30 seconds ON / 5 minutes OFF) (Export: 25 seconds ON / 7 minutes OFF)
Protection against ingress of fluids:	IPX0 *[Foot Control only: IPX1]*
Regulatory Compliance:	*See* ***Regulatory Compliance Charts***
Table Speeds ***(by function):***	
Base	14 - 26 seconds
Back *(models w/power back)*	15 - 20 seconds





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Model Identification / Compliance Chart - 222

Model	Description	Serial Number Prefix	Complies To:						Electrical Ratings:		
			UL 60601-1	CAN/CSA 22.2, #601.1-M90	UL 544	EN 60601-1	EN 60601-1-2 (EMC)	CE	VAC +/- 10%	Amps	Cycles (Hz)
222-001	**Ritter Basic Table** (Standard Top)	RG,V	X	X		X	X	X	115	5.5	50/60
222-002	**Ritter Basic Table** w/ Receptacle (Standard Top)	RH,V			X		X	X	115	10.5	50/60
222-003	**Ritter Basic Table** w/ Drawer Heater, Pelvic Tilt (Standard Top)	RJ,V	X	X		X	X	X	115	6	50/60
222-004	**Ritter Basic Table** w/ Receptacle, Pelvic Tilt Drawer Heater, (Standard Top)	RK,V			X		X	X	115	11	50/60
222-005	**Ritter Basic Table** (Seamless Top)	RG,V	X	X		X	X	X	115	5.5	50/60
222-006	**Ritter Basic Table** w/ Receptacle, (Seamless Top)	RH,V			X		X	X	115	10.5	50/60
222-007	**Ritter Basic Table** w/ Drawer Heater, Pelvic Tilt (Seamless Top)	RJ,V	X	X		X	X	X	115	6	50/60
222-008	**Ritter Basic Table** w/ Receptacle, Pelvic Tilt Drawer Heater, (Seamless Top)	RK,V			X		X	X	115	11	50/60
222-009	**Ritter Basic Export Table** w/Pelvic Tilt (Seamless Top)	RL,V				X	X	X	230	2.75	50/60
222-010	**Ritter Basic Export Table** w/ Pelvic Tilt, Drawer Heater (SeamlessTop)	RM,V				X	X	X	230	3	50/60
222-011	**Ritter Basic Table (Canada)** w/Receptacle (Standard Top)	V		X			X	X	115	10.5	50/60
222-012	**Ritter Basic Table (Canada)** w/Receptacle, Pelvic Tilt, Drawer Heater (Standard Top)	V		X			X	X	115	11	50/60
222-013	**Ritter Basic Table (Canada)** w/Receptacle (SeamlessTop)	V		X			X	X	115	10.5	50/60
222-014	**Ritter Basic Table (Canada)** w/Receptacle, Pelvic Tilt, Drawer Heater (Seamless Top)	V		X			X	X	115	11	50/60
222-015	**Ritter Basic Table** w/ Receptacle	V	X	X		X	X	X	115	10.5	50/60
222-016	**Ritter Basic Table** w/ Receptacle, Pelvic Tilt, Drawer Heater	V	X	X		X	X		115	11	50/60
222-017	**Ritter Basic Table - Export** w/ Pelvic Tilt	V	X	X		X	X	X	230	2.75	50/60

Fire Code Ratings:

All upholstery complies with California Bureau of Home Furnishing Technical Bulletin 117.

Optional upholstery is available that complies with California Bureau of Home Furnishing Technical Bulletin 133.

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General Information

Model Identification / Compliance Chart - 223

Model	Description	Serial Number Prefix	Complies To:						Electrical Ratings:		
			UL 60601-1	CAN/CSA 22.2, #601.1-M90	UL 544	EN 60601-1	EN 60601-1-2 (EMC)	CE	VAC +/- 10%	Amps	Cycles (Hz)
223-001	**Ritter Power Back Table** (Standard Top)	SC, V	X	X		X	X	X	115	7	50/60
223-002	**Ritter Power Back Table** w/ Receptacle (Standard Top)	SD, V			X		X	X	115	12	50/60
223-003	**Ritter Power BackTable** w/ Drawer Heater, Pelvic Tilt (Standard Top)	SE, V	X	X		X	X	X	115	7.5	50/60
223-004	**Ritter Power Back Table** w/ Receptacle, Pelvic Tilt Drawer Heater, (Standard Top)	SF, V			X		X	X	115	12.5	50/60
223-005	**Ritter Power Back Table** (Seamless Top)	SC, V	X	X		X	X	X	115	7	50/60
223-006	**Ritter Power Back Table** w/ Receptacle (Seamless Top)	SD, V			X		X	X	115	12	50/60
223-007	**Ritter Power Back Table** w/ Drawer Heater, Pelvic Tilt (Seamless Top)	SE, V	X	X		X	X	X	115	7.5	50/60
223-008	**Ritter Power Back Table** w/ Receptacle, Pelvic Tilt Drawer Heater, (Seamless Top)	SF, V			X		X	X	115	12.5	50/60
223-009	**Ritter Power Back Export Table** w/ Pelvic Tilt (Seamless Top)	SG, V				X	X	X	230	3.75	50/60
223-010	**Ritter Power Back Export Table** w/ Pelvic Tilt, Drawer Heater (Seamless Top)	SH, V				X	X	X	230	4	50/60
223-011	**Ritter Power Back Table (Canada)** w/ Receptacle (Standard Top)	V		X			X	X	115	12	50/60
223-012	**Ritter Power Back Table (Canada)** w/ Receptacle, Pelvic Tilt Drawer Heater, (Standard Top)	V		X			X	X	115	12.5	50/60
223-013	**Ritter Power Back Table (Canada)** w/ Receptacle (Seamless Top)	V		X			X	X	115	12	50/60
223-014	**Ritter Power Back Table (Canada)** w/ Receptacle, Pelvic Tilt Drawer Heater, (Seamless Top)	V		X			X	X	115	12.5	50/60
223-015	**Ritter Power Back Table** w/ Receptacle	V	X	X		X	X	X	115	12	50/60
223-016	**Ritter Power Back Table** w/ Receptacle, Pelvic Tilt, Drawer Heater	V	X	X		X	X		115	12.5	50/60

Fire Code Ratings:

All upholstery complies with California Bureau of Home Furnishing Technical Bulletin 117.

Optional upholstery is available that complies with California Bureau of Home Furnishing Technical Bulletin 133.

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Model Identification / Compliance Chart - 622 / 623

Model	Description	Serial Number Prefix	Complies To:						Electrical Ratings:		
			UL 60601-1	CAN/CSA 22.2, #601.1-M90	UL 544	EN 60601-1	EN 60601-1-2 (EMC)	CE	VAC +/- 10%	Amps	Cycles (Hz)
622-001	**Midmark Manual Back Table** w/ Receptacle	**SJ, V**			X		X	X	115	10.5	50/60
622-002	**Midmark Manual Back Table** w/ Receptacle, Drawer Heater, Pelvic Tilt, & Heated Upholstery	**SK, V**			X		X	X	115	11.5	50/60
622-003	**Midmark Manual Back Table** w/ Pelvic Tilt	**SN, V**	X	X		X	X	X	230	2.75	50/60
622-004	**Midmark Manual Back Table** w/ Drawer Heater, Pelvic Tilt, & Heated Upholstery	**SP, V**	X	X		X	X	X	230	3.25	50/60
622-005	**Midmark Manual Back Table (Canada)** w/ Receptacle	**V**		X			X	X	115	10.5	50/60
622-006	**Midmark Manual Back Table (Canada)** w/ Receptacle, Drawer Heater, Pelvic Tilt, & Heated Upholstery	**V**		X			X	X	115	11.5	50/60
622-007	**Midmark Manual Back Table** w/ Receptacle	**V**	X	X		X	X	X	115	10.5	50/60
622-008	**Midmark Manual Back Table** w/ Receptacle, Drawer Heater, Pelvic Tilt, & Heated Upholstery	**V**	X	X		X	X	X	115	11.5	50/60
623-001	**Midmark Power Back Table** w/ Receptacle	**SL, V**			X		X	X	115	12.5	50/60
623-002	**Midmark Power Back Table** w/ Receptacle, Pelvic Tilt, Drawer Heater, & Heated Upholstery	**SM, V**			X		X	X	115	13.5	50/60
623-003	**Midmark Power Back Table** w/ Pelvic Tilt	**SR, V**	X	X			X	X	230	3.75	50/60
623-004	**Midmark Power Back Table** w/ Pelvic Tilt, Drawer Heater, & Heated Upholstery	**SS, V**	X	X			X	X	230	4.25	50/60
623-005	**Midmark Power Back Table (Canada)** w/ Receptacle	**V**		X			X	X	115	12.5	50/60
623-006	**Ritter Power Back Table (Canada)** w/ Receptacle, Pelvic Tilt, Drawer Heater, Heated Upholstery	**V**		X			X	X	115	13.5	50/60
623-007	**Midmark Power Back Table** w/ Receptacle	**V**	X	X		X	X	X	115	12.5	50/60
623-008	**Midmark Power Back Table** w/ Receptacle, Pelvic Tilt, Drawer Heater, & Heated Upholstery	**V**	X	X		X	X		115	13.5	50/60
623-009	**Midmark Power Back Table - Export** w/ Pelvic Tilt	**V**	X	X		X	X	X	230	3.75	50/60
623-010	**Midmark Power Back Table - Export** w/ Pelvic Tilt, Drawer Heater, & Heated Upholstery	**V**	X	X		X	X		230	4.25	50/60
623-011	**Midmark Power Back Table - Export** w/ Pelvic Tilt, & Drawer Heater	**V**	X	X		X	X	X	230	4.0	50/60

Fire Code Ratings:

All upholstery complies with California Bureau of Home Furnishing Technical Bulletin 117.

Optional upholstery is available that complies with California Bureau of Home Furnishing Technical Bulletin 133.

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Scheduled Maintenance / Barrier-Free® Examination Table

Interval	Inspection or Service	Service, Adjust , Repair and / or Replace as Required (Refer to appropriate S&P or Quick Reference Guide)	222	223	622	623
Weekly	Cleaning	Clean upholstery with diluted bleach solution. 10:1 (water:bleach)	X	X	X	X
		Wipe painted metal & plastic surfaces with a clean soft cloth and mild cleaner. (NOTE: Periodic application of common furniture wax will ease cleaning, and maintain the luster of the surfaces).	X	X	X	X
	Obvious Damage	Visually inspect components for damage that could cause problems during operation or unsafe operation.	X	X	X	X
Semi-Annually	Mechanical Operation	Check all mechanical functions using the foot control. Repeat using the hand control when present.	X	X	X	X
		Check manual back releaase mechanism for proper operation.	X	X	X	X
		Table shrouds should move smoothly & quietly when base is raised & lowered. (NOTE: There are plastic glides on the shroud tabs. Missing glides may result in noisy operation.)	X	X	X	X
	Labels / Decals	Replace any missing or illegible labels.	X	X	X	X
	Lubricate	Lubricate back hinge with light machine oil.	X	X	X	X
		Lubricate footrest slide with household furniture wax.	X	X	X	X
	Hardware	All fasteners must be present and fastened securely.	X	X	X	X
	Electrical System	Inspect power cord and all wiring for damage.	X	X	X	X
		Be sure all electrical connections are tight.	X	X	X	X
	Stirrups	Check that stirrups extend easily, and lock securely into each lateral position.	X	X	X	X

Date of Service: _____/____/____

Location:

Service Technician:

Model:

Serial Number:

Section A

Troubleshooting

Table Function Go To Page:

Base Up / Down A-2
Back Up / Down A-11
Drawer Heater A-23
Table Receptacle A-27
Auto Return A-29
Upholstery Heater System A-32

Click on the Go To Page button and enter the desired page number. (Note: Letters are case sensitve. ex. A-2)

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Base UP / DOWN Function

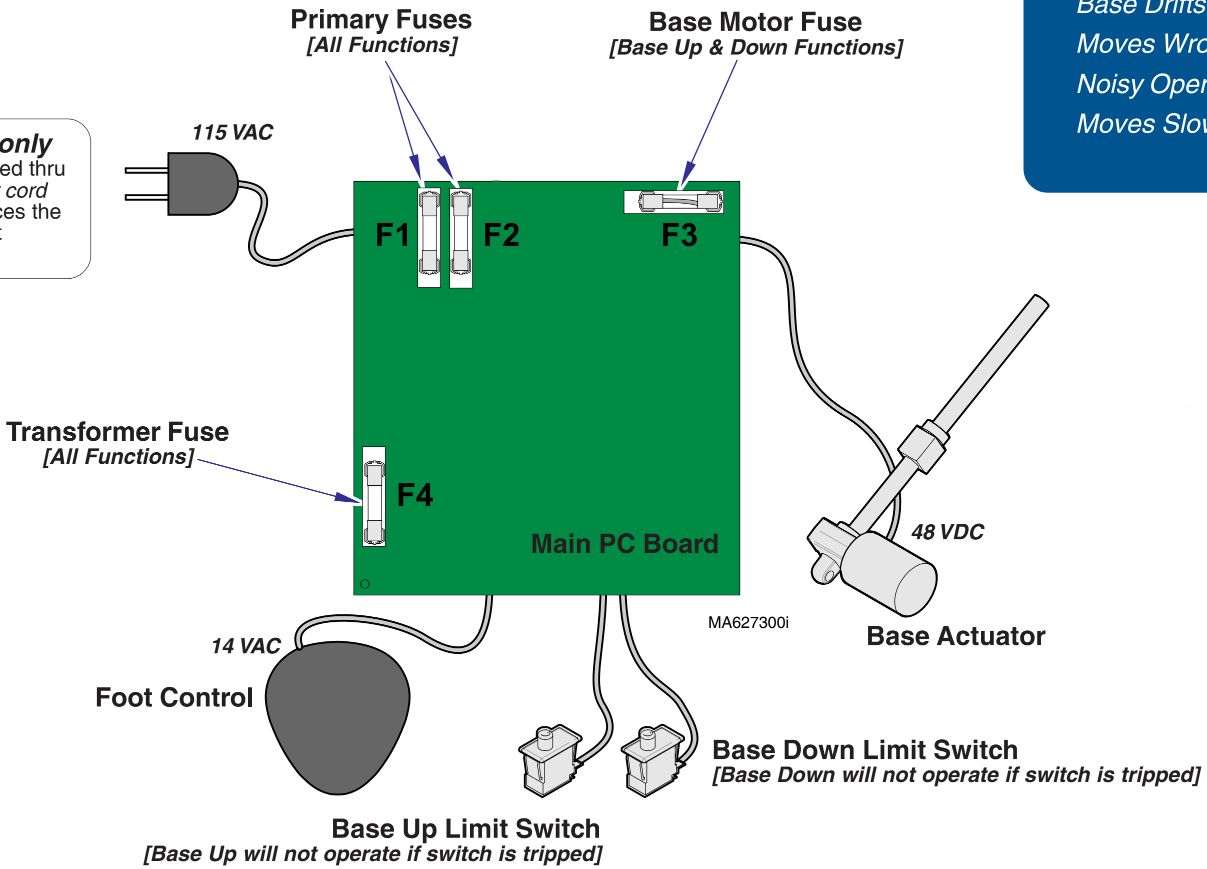
This illustration shows only the components that affect the Base UP / DOWN function.
Refer to the following page for a detailed description of current flow during this function.

Troubleshooting
[Base Up / Down Function]

Problem **Go To Page:**

No UP or DOWN Functions A-4
No UP Function (DOWN - OK) A-5
No DOWN Function (UP - OK) A-6
Base Drifts Down A-7
Moves Wrong Direction A-8
Noisy Operation A-9
Moves Slowly A-10

NOTE: ***230 VAC models only***
Line voltage (230 VAC) is supplied thru two fuses *(located by the power cord inlet)* to a transformer that reduces the line voltage to 115 VAC before it reaches the PC Board.



Primary Fuses
[All Functions]
Base Motor Fuse
[Base Up & Down Functions]
115 VAC
F1
F2
F3
Transformer Fuse
[All Functions]
F4
Main PC Board
48 VDC
MA627300i
Base Actuator
14 VAC
Foot Control
Base Down Limit Switch
[Base Down will not operate if switch is tripped]
Base Up Limit Switch
[Base Up will not operate if switch is tripped]

Models: ***All***
Serial Numbers: *All*

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Base UP / DOWN Function

NOTE
On 230 VAC models, line voltage *(230 VAC)* is supplied thru two fuses *(located by IEC inlet)* to a transformer that reduces the line voltage to 115 VAC before it gets to the PC board.

Power To Foot Control

115 VAC is supplied thru the two primary fuses *(F1 & F2)* to the transformer on the PC board. *[F4 fuse protects the transformer]*.

The transformer reduces the line voltage and supplies 14 VAC to the foot control.

Base Up Operation

NOTE
If the Base Up limit switch is tripped (open), the Base Up function will not operate.

When the Base Up function is activated, current *(14 VAC)* flows thru the Up function foot switch *(N.O)*, then back to the PC board. Circuitry on the PC Board energizes the base relay. *[F3 fuse protects the base motor]*.

NOTE
The Base Up/Down relay has four contacts:
(2) Normally Open: Base Up function
(2) Normally Closed: Base Down function

When the base relay is energized, the (2) Normally Open contacts of the relay close. When these contacts close, current (*48 VDC)* flows to the actuator motor.

When current flows to the actuator thru the Normally Open contacts of the relay, the actuator motor runs and raises the table.

Actuator Motor runs until:

1. Foot control pedal is released.
2. Base Up limit switch is tripped.
3. 26 second software time limit is reached.
4. Fuse(s) opens (blows).
   [Primary, Base Motor, Transformer fuse]

Base Down Operation

NOTE
If the Base Down limit switch is tripped (open), the Base Down function will not operate.

When the Base Down function is activated, current *(14 VAC)* flows thru the Down function foot switch *(N.O.)*, then back to the PC Board.

NOTE
The Base Up/Down relay has four contacts:
(2) Normally Open: Base Up function
(2) Normally Closed: Base Down function

When this voltage is applied, current *(48 VDC)* flows to the actuator motor thru the (2) Normally Closed contacts of the Base Up/Down relay. *[The relay does not energize].*

When voltage flows to the actuator thru the Normally Closed contacts of the relay, the actuator motor runs and lowers the table.

Actuator Motor runs until:

1. Foot control pedal is released.
2. Base Down limit switch is tripped.
3. 26 second software time limit is reached.
4. Fuse(s) opens (blows).
   [Primary, Base Motor, Transformer fuse]

Equipment Alert

If an overload condition is detected the PC board will "beep" and all power functions will be disabled. Release the function button, remove load, then retry function.*

**(weight limit exceeded, mechanical binding, etc),*

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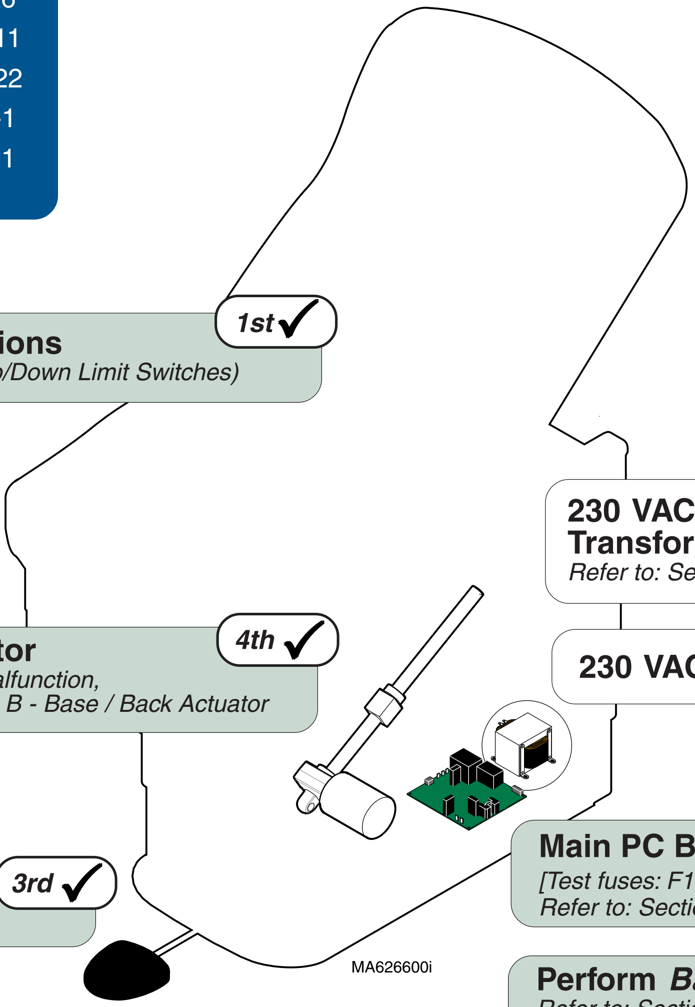
Troubleshooting

Refer To: **Go To Page:**

Fuses B-2
Limit Switches B-4
Foot Control B-6
Base / Back Actuator B-11
Base Relay Test B-22
Wiring Diagrams D-1
Exploded Views / Part Numbers . E-1

Function	*Status*	*Problem*
Base Up	👎	No movement
Base Down	👎	No movement



Loose Wire Connections 1st ✓
(esp. Foot Control & Base Up/Down Limit Switches)

230 VAC Transformer Fuses (2) *230 V models only* ✓
Refer to: Section B - Fuses

Base Actuator 4th ✓
To isolate the malfunction,
Refer to: Section B - Base / Back Actuator

230 VAC Transformer *230 V models only* ✓

Main PC Board Fuse(s): 2nd ✓
[Test fuses: F1, F2, F3, & F4]
Refer to: Section B - Fuses

Perform *Footswitch Test* 3rd ✓
Refer to: Section B - Foot Control

Perform *Base Relay Test* 5th ✓
Refer to: Section B - Main PC Board

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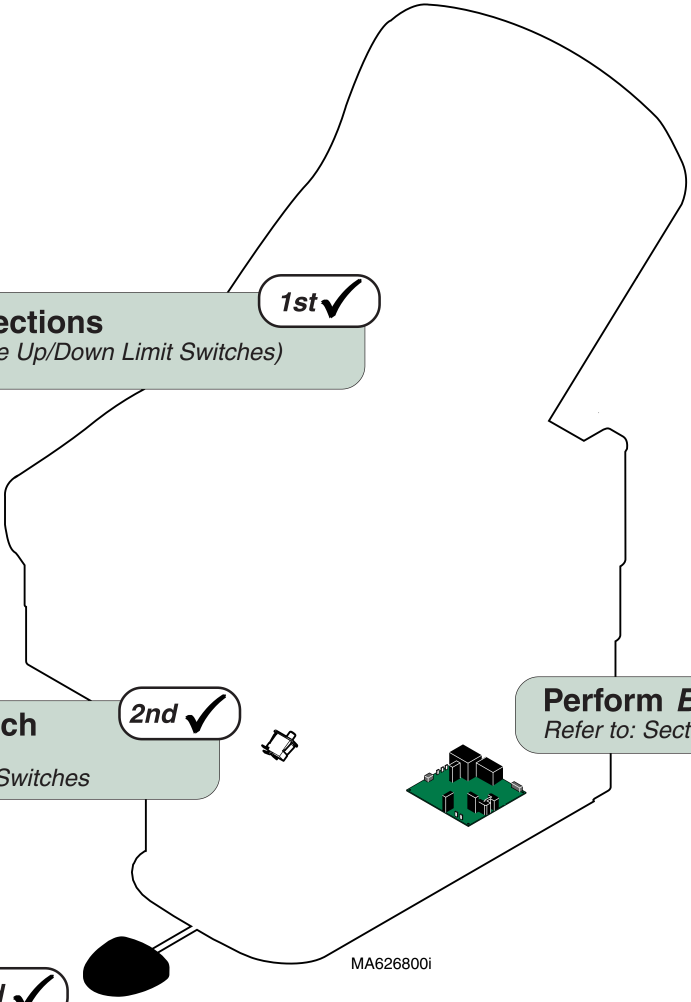
Troubleshooting

Function	Status	Problem
Base Up	👎	No movement
Base Down	👍	OK

Refer To: **Go To Page:**

Limit Switches B-4
Footswitch Test B-6
Base Relay Test B-22
Wiring Diagrams D-1
Exploded Views / Part Numbers . E-1



Loose Wire Connections 1st ✓
(esp. Foot Control & Base Up/Down Limit Switches)

Base Up Limit Switch 2nd ✓
Perform *Limit Switch Test.*
Refer to: Section B - Limit Switches

Perform *Footswitch Test* 3rd ✓
Refer to: Section B - Foot Control

Perform *Base Relay Test* 4th ✓
Refer to: Section B - Main PC Board

Models: ***All***
Serial Numbers: *All*

Base Up / Down

Go To Table Of Contents

Troubleshooting

Function	Status	Problem
Base Up	👍	OK
Base Down	👎	No movement

Refer To: **Go To Page:**

Limit Switches B-4
Foot Control B-6
Base Relay Test B-22
Wiring Diagrams D-1
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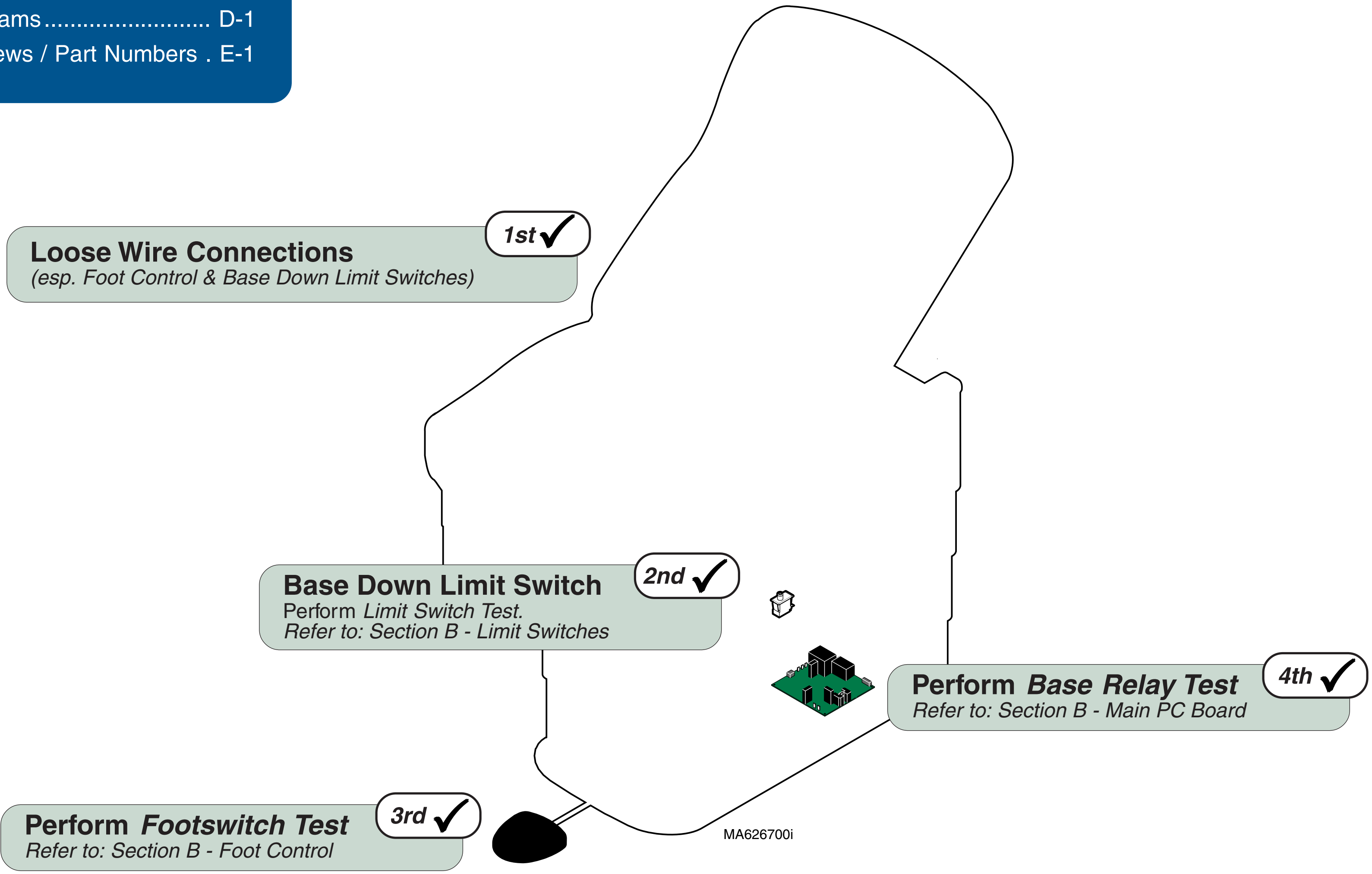

Loose Wire Connections *(esp. Foot Control & Base Down Limit Switches)* — *1st* ✓

Base Down Limit Switch
Perform *Limit Switch Test.*
Refer to: Section B - Limit Switches — *2nd* ✓

Perform *Footswitch Test*
Refer to: Section B - Foot Control — *3rd* ✓

Perform *Base Relay Test*
Refer to: Section B - Main PC Board — *4th* ✓

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Function	Status	Problem
Base Up	◆	Table drifts down.
Base Down	◆	Table drifts down.

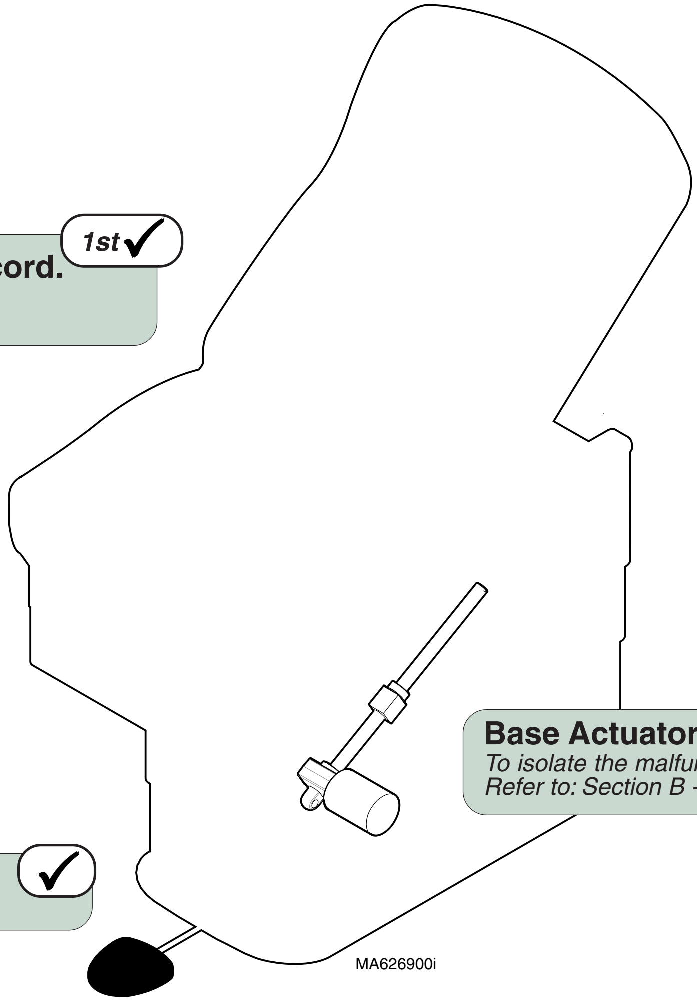
Refer To:

Go To Page:

Foot Control	B-6
Base / Back Actuator	B-11
Wiring Diagrams	D-1
Exploded Views / Part Numbers	E-1

1st ✓

Run table up, then unplug power cord.
If drifting stops, perform *Footswitch Test*.
If drifting continues, check Base Actuator.



Base Actuator ✓
To isolate the malfunction,
Refer to: Section B - Base / Back Actuator

Perform *Footswitch Test* ✓
Refer to: Section B - Foot Control

Models: ***All***
Serial Numbers: *All*

Base Up / Down

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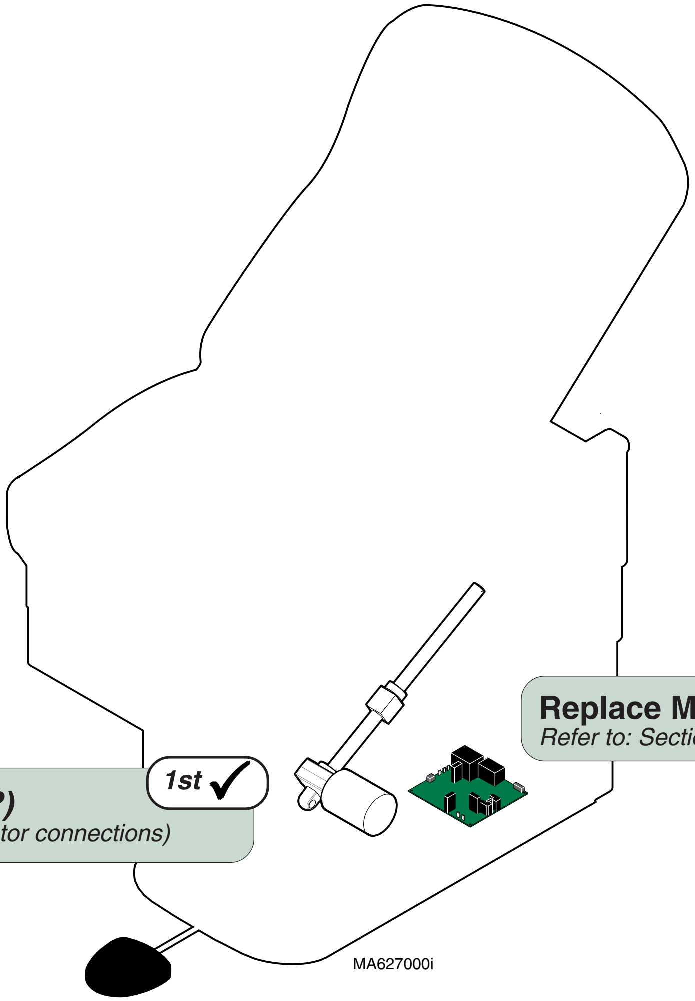
Troubleshooting

Refer To: Go To Page:
Main PC Board Replacement B-24
Wiring Diagrams.......................... D-1
Exploded Views / Part Numbers . E-1

Function	Status	Problem
Base Up	◆	Press Base UP pedal, table moves DOWN.
Base Down	◆	Press Base DOWN pedal, table moves UP.



Wire connections *(reversed?)* 1st ✓
(Check Foot Control & Base Actuator motor connections)

Replace Main PC Board 2nd ✓
Refer to: Section B - Main PC Board

Models: ***All***
Serial Numbers: *All*

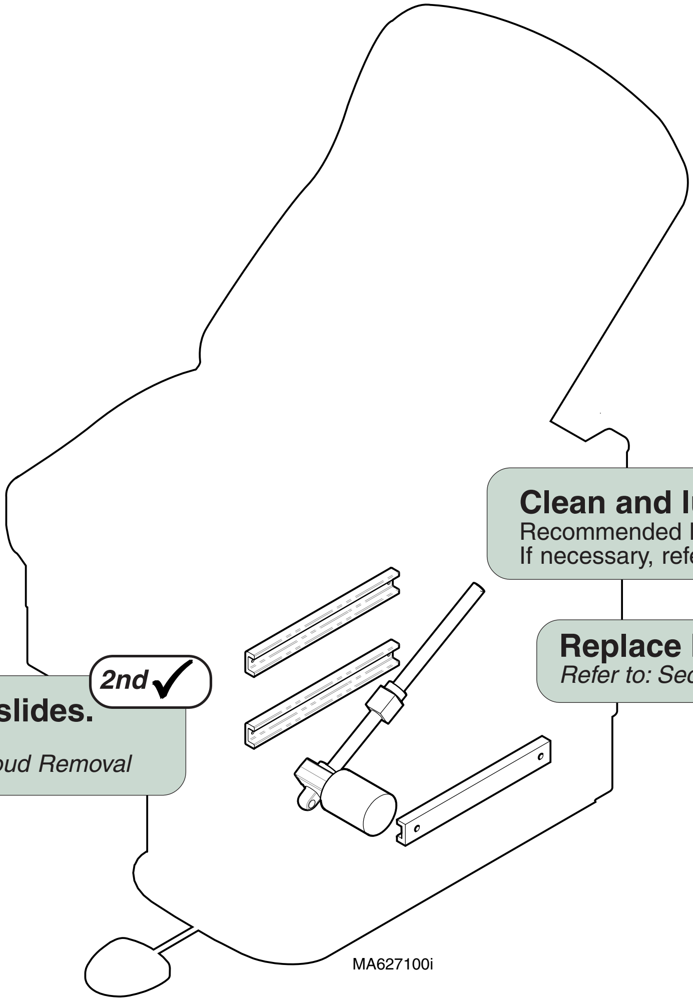
Go To Table Of Contents

Troubleshooting

Function	Status	Problem
Base Up	⚠	Noisy / grinding / squeaking
Base Down	⚠	Noisy / grinding / squeaking

Refer To: **Go To Page:**

Base Actuator Replacement....... B-13
Table Shroud Removal C-2
Wiring Diagrams......................... D-1
Exploded Views / Part Numbers . E-1



1st ✓

Clean and lubricate base actuator threads.
Recommended lubricant: Lithium grease
If necessary, refer to: *Section C - Table Shroud Removal*

2nd ✓

Remove any debris from base slides.
Do not lubricate base slides.
If necessary, refer to: *Section C - Table Shroud Removal*

3rd ✓

Replace Base Actuator
Refer to: Section B - Base / Back Actuator

Models: ***All***
Serial Numbers: *All*

Go To Table Of Contents

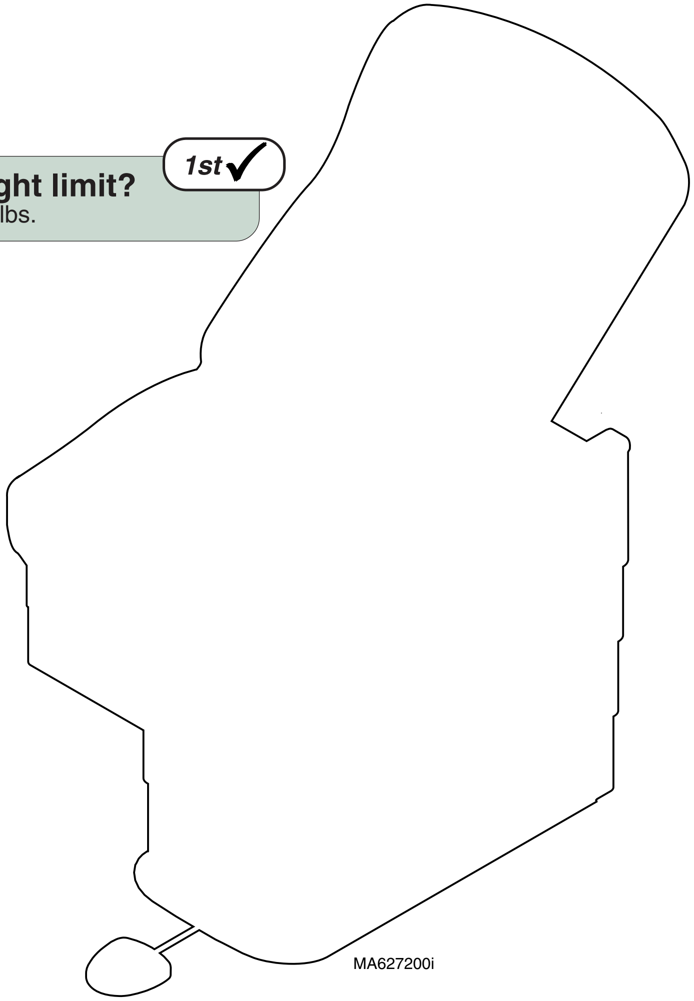
Refer To: **Go To Page:**

Wiring Diagrams D-1
Exploded Views / Part Numbers .. E-1

Function	*Status*	*Problem*
Base Up	◆	Moves slowly
Base Down	◆	Moves slowly

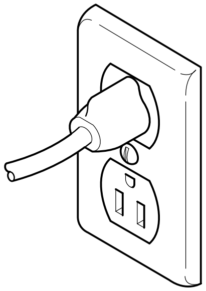
1st ✓

Did patient exceed 400 lb. weight limit?
Inform staff that max. patient weight is 400 lbs.



2nd ✓

Low voltage to table
Required voltage:
115 VAC models............... 115 ±10% VAC
230 VAC models .... 230 ±10% VAC



Models: ***All***
Serial Numbers: *All*

Go To Table Of Contents

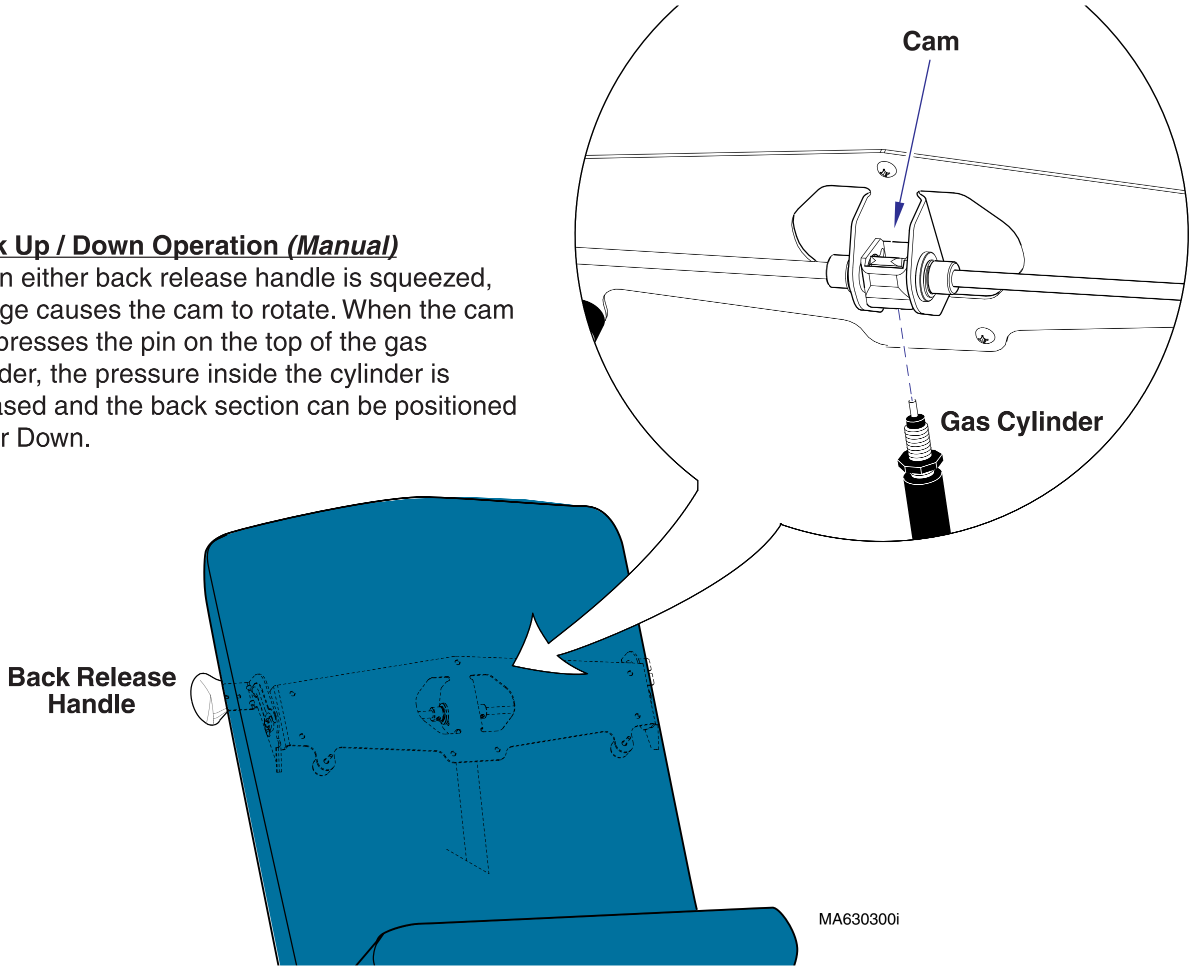
Back UP / DOWN Function (Manual)

This illustration shows only the components that affect the Back UP / DOWN function.

Troubleshooting
[Back Up / Down Function (Manual)]

Problem — **Go To Page:**
Back Drifts Up or Down A-12
No Movement A-13
Difficult To Position A-13

Back Up / Down Operation *(Manual)*
When either back release handle is squeezed, linkage causes the cam to rotate. When the cam compresses the pin on the top of the gas cylinder, the pressure inside the cylinder is released and the back section can be positioned Up or Down.

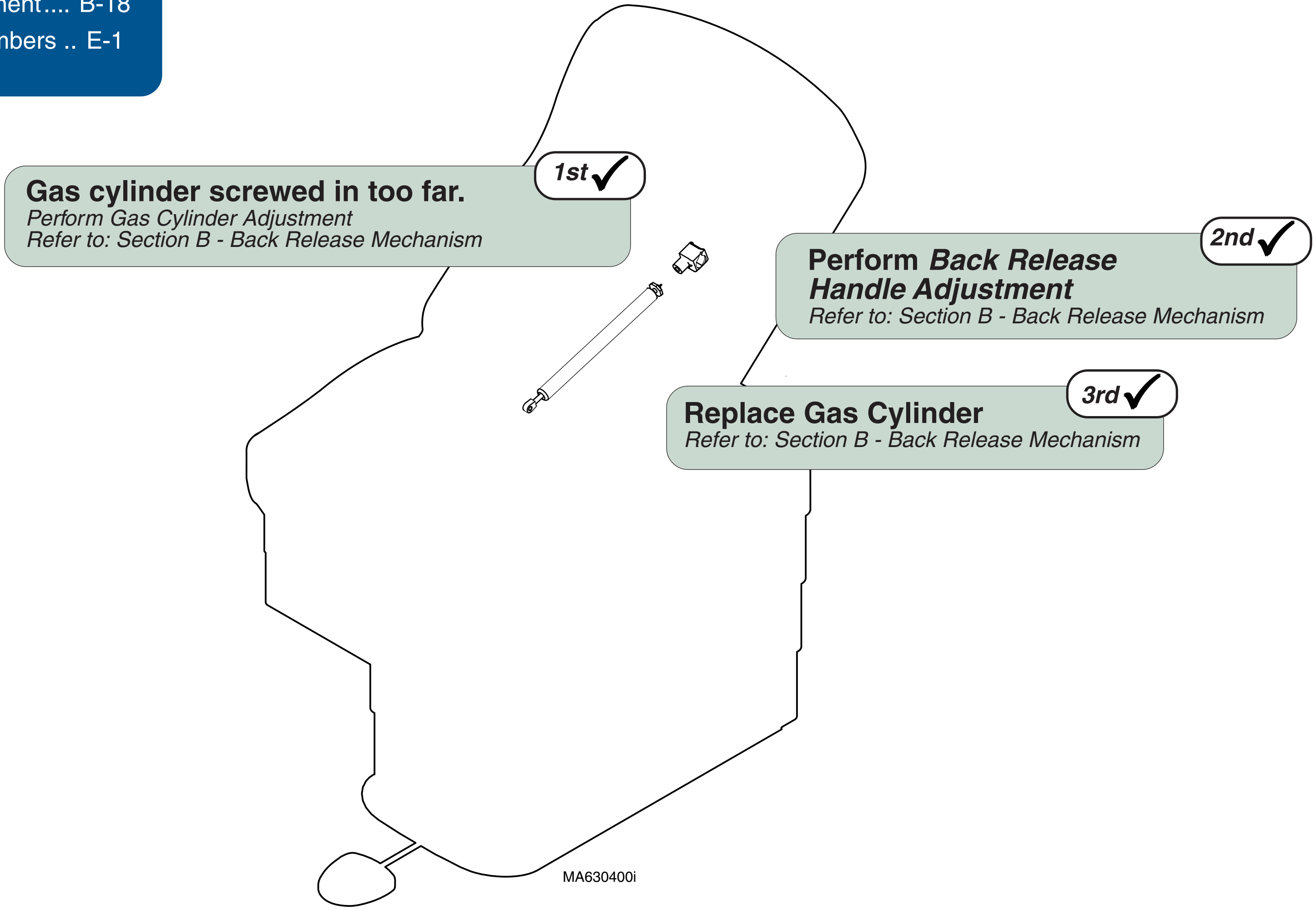


Troubleshooting

Function	Status	Problem
Back Up/Down		Back section drifts

Refer To: Go To Page:

Back Release Handle
Adjustment B-17
Gas Cylinder
Replacement & Adjustment B-18
Exploded Views / Part Numbers .. E-1



1st ✓ **Gas cylinder screwed in too far.**
Perform Gas Cylinder Adjustment
Refer to: Section B - Back Release Mechanism

2nd ✓ **Perform *Back Release Handle Adjustment***
Refer to: Section B - Back Release Mechanism

3rd ✓ **Replace Gas Cylinder**
Refer to: Section B - Back Release Mechanism

Models: Serial Numbers:	**222 (all)** All	**622 (all)** All

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Troubleshooting

Function	Status	Problem
Back Up/Down	⛔	No movement
	◆	Difficult to position

Refer To: **Go To Page:**

Back Release Handle
Adjustment B-17
Gas Cylinder
Replacement & Adjustment.... B-18
Exploded Views / Part Numbers .. E-1

1st ✓

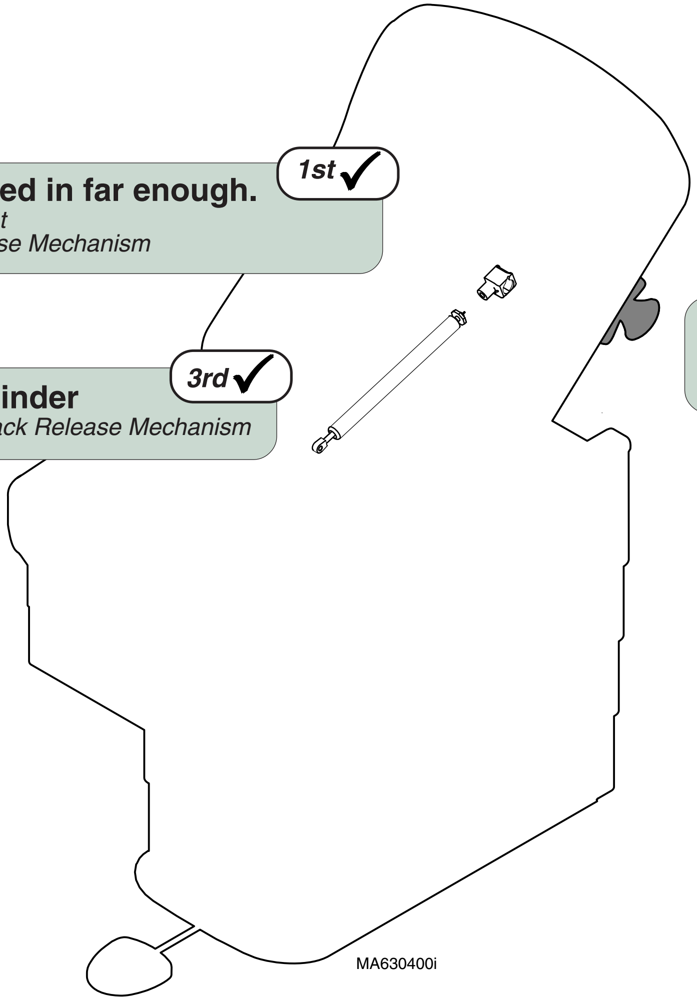
Gas cylinder not screwed in far enough.
Perform Gas Cylinder Adjustment
Refer to: Section B - Back Release Mechanism

2nd ✓

Perform *Back Release Handle Adjustment*
Refer to: Section B - Back Release Mechanism

3rd ✓

Replace Gas Cylinder
Refer to: Section B - Back Release Mechanism



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Troubleshooting

Back UP / DOWN Function (Power)

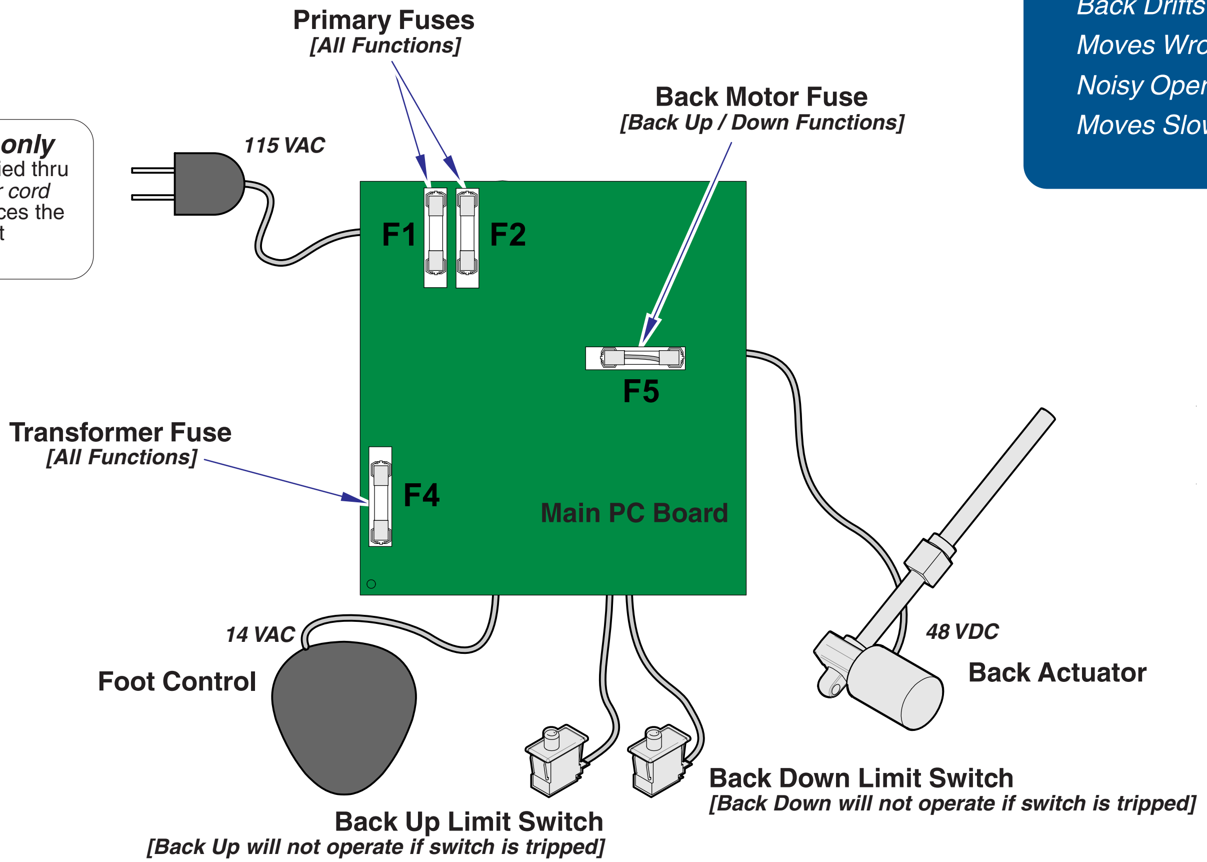
This illustration shows only the components that affect the Back UP / DOWN function. Refer to the following page for a detailed description of current flow during this function.

Troubleshooting
[Back Up / Down Function (Power)]

Problem **Go To Page:**

No UP or DOWN Functions A-16
No DOWN Function (UP - OK) A-17
No UP Function (DOWN - OK) A-18
Back Drifts Down A-19
Moves Wrong Direction A-20
Noisy Operation A-21
Moves Slowly A-22

NOTE: ***230 VAC models only***
Line voltage (230 VAC) is supplied thru two fuses *(located by the power cord inlet)* to a transformer that reduces the line voltage to 115 VAC before it reaches the PC Board.



Primary Fuses
[All Functions]
115 VAC
Back Motor Fuse
[Back Up / Down Functions]
F1
F2
F5
Transformer Fuse
[All Functions]
F4
Main PC Board
14 VAC
Foot Control
48 VDC
Back Actuator
Back Down Limit Switch
[Back Down will not operate if switch is tripped]
Back Up Limit Switch
[Back Up will not operate if switch is tripped]

Go To Table Of Contents

Back UP / DOWN Function (Power)

NOTE
On 230 VAC models, line voltage *(230 VAC)* is supplied thru two fuses *(located by IEC inlet)* to a transformer that reduces the line voltage to 115 VAC before it gets to the PC board.

Power To Foot Control

115 VAC is supplied thru the two primary fuses *(F1 & F2)* to the transformer on the PC board. *[F4 fuse protects the transformer]*.

The transformer reduces the line voltage and supplies 14 VAC to the foot control.

Back Up Operation

NOTE
If the Back Up limit switch is tripped (open), the Back Up function will not operate.

When the Back Up function is activated, current *(14 VAC)* flows thru the Up function foot switch *(N.O)*, then back to the PC board. Circuitry on the PC Board energizes the back relay. *[F5 fuse protects the back motor]*.

NOTE
The Back Up/Down relay has four contacts:
(2) Normally Open: Back Up function
(2) Normally Closed: Back Down function

When the back relay is energized, the (2) Normally Open contacts of the relay close. When these contacts close, current (*48 VDC)* flows to the actuator motor.

When current flows to the actuator thru the Normally Open contacts of the relay, the actuator motor runs and raises the back section.

Actuator Motor runs until:
1. Foot control pedal is released.
2. Back Up limit switch is tripped.
3. 26 second software time limit is reached.
4. Fuse(s) opens (blows).
   [Primary, Back Motor, Transformer fuse]

Back Down Operation

NOTE
If the Back Down limit switch is tripped (open), the Back Down function will not operate.

When the Back Down function is activated, current *(14 VAC)* flows thru the Down function foot switch *(N.O.)*, then back to the PC Board.

NOTE
The Back Up/Down relay has four contacts:
(2) Normally Open: Back Up function
(2) Normally Closed: Back Down function

When this voltage is applied, current *(48 VDC)* flows to the actuator motor thru the (2) Normally Closed contacts of the Back Up/Down relay. *[The relay does not energize].*

When voltage flows to the actuator thru the Normally Closed contacts of the relay, the actuator motor runs and lowers the back section.

Actuator Motor runs until:
1. Foot control pedal is released.
2. Back Down limit switch is tripped.
3. 26 second software time limit is reached.
4. Fuse(s) opens (blows).
   [Primary, Back Motor, Transformer fuse]

Equipment Alert

If an overload condition is detected the PC board will "beep" and all power functions will be disabled. Release the function button, remove load, then retry function.*
**(weight limit exceeded, mechanical binding, etc),*

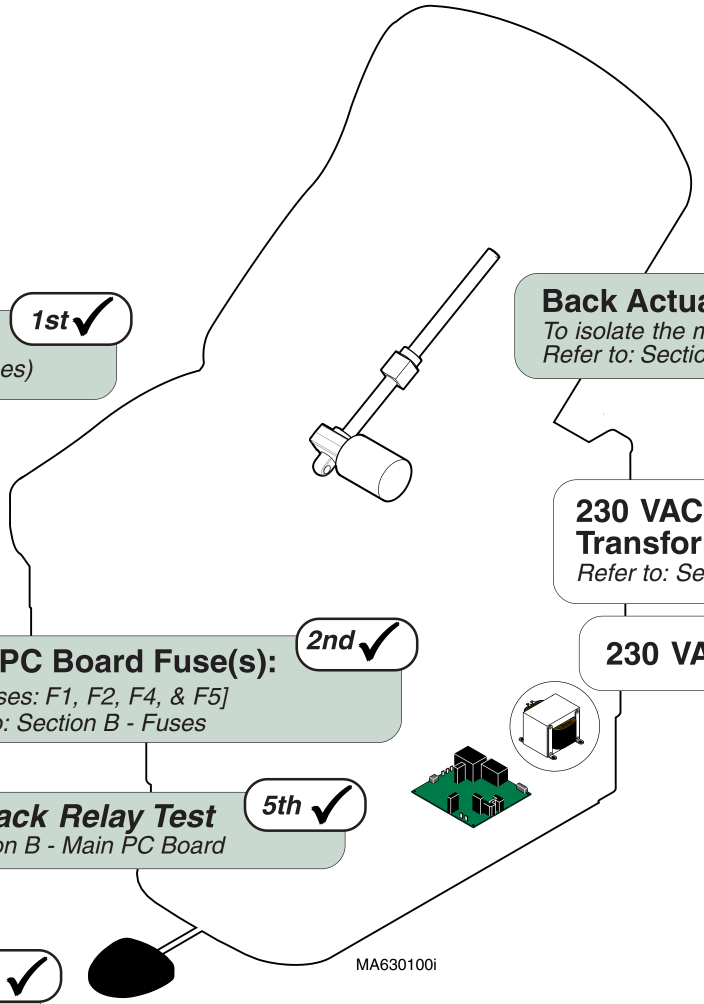
Troubleshooting

Go To Table Of Contents

Refer To: **Go To Page:**

Fuses B-2
Limit Switches B-4
Foot Control B-6
Base / Back Actuator B-11
Back Relay Test B-23
Wiring Diagrams......................... D-1
Exploded Views / Part Numbers . E-1

Function	*Status*	*Problem*
Back Up	👎	No movement
Back Down	👎	No movement



Back Actuator *4th* ✓
To isolate the malfunction,
Refer to: Section B - Base / Back Actuator

Loose Wire Connections *1st* ✓
(esp. Foot Control & Back Up/Down Limit Switches)

230 VAC Transformer Fuses (2) *230 V models only* ✓
Refer to: Section B - Fuses

230 VAC Transformer *230 V models only* ✓

Main PC Board Fuse(s): *2nd* ✓
[Test fuses: F1, F2, F4, & F5]
Refer to: Section B - Fuses

Perform *Back Relay Test* *5th* ✓
Refer to: Section B - Main PC Board

Perform *Footswitch Test* *3rd* ✓
Refer to: Section B - Foot Control

Back Up / Down
Power

Models: *Serial Numbers:*	***223 (all)*** *All*	***623 (all)*** *All*

Rev. 5/07

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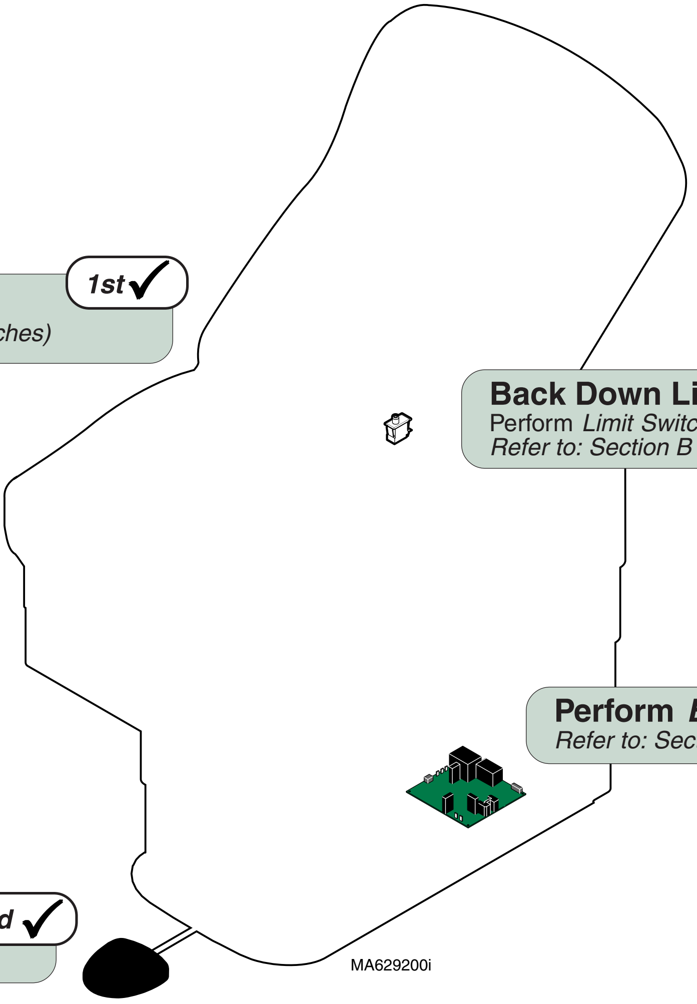
Function	Status	Problem
Back Up	👍	OK
Back Down	👎	No movement

Refer To:	Go To Page:
Limit Switches	B-4
Foot Control	B-6
Back Relay Test	B-23
Wiring Diagrams	D-1
Exploded Views / Part Numbers	E-1



Loose Wire Connections 1st ✓
(esp. Foot Control & Back Down Limit Switches)

Back Down Limit Switch 2nd ✓
Perform *Limit Switch Test.*
Refer to: Section B - Limit Switches

Perform *Footswitch Test* 3rd ✓
Refer to: Section B - Foot Control

Perform *Back Relay Test* 4th ✓
Refer to: Section B - Main PC Board

Models: Serial Numbers:	***223 (all)*** *All*	***623 (all)*** *All*

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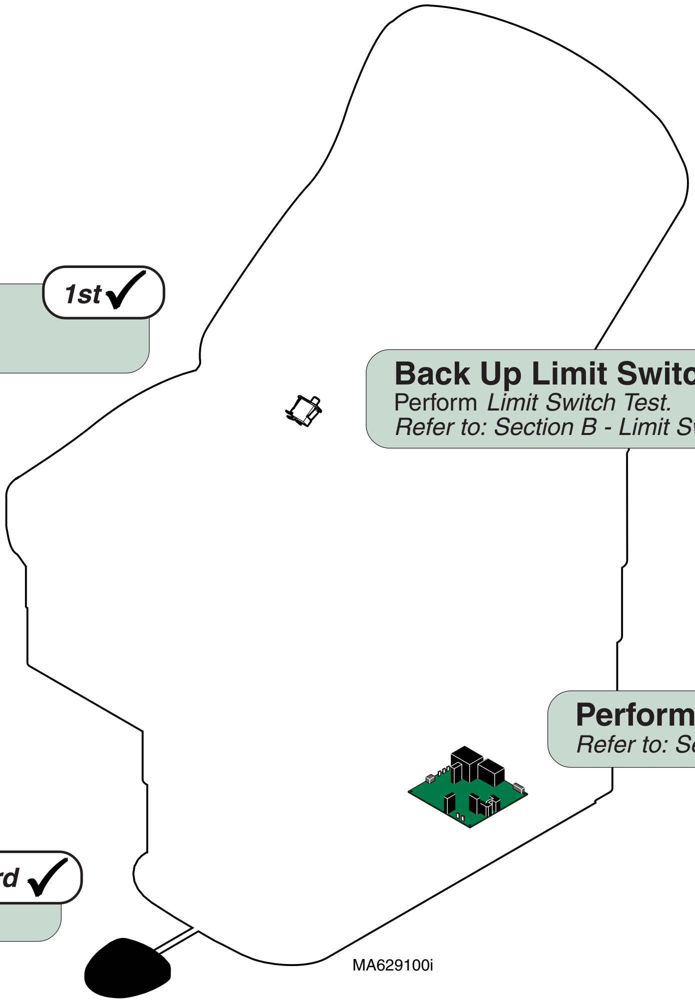
Troubleshooting

Refer To: **Go To Page:**

Limit Switches B-4
Foot Control B-6
Back Relay Test B-23
Wiring Diagrams D-1
Exploded Views / Part Numbers . E-1

Function	*Status*	*Problem*
Back Up	👎	No movement
Back Down	👍	OK



Loose Wire Connections 1st ✓
(esp. Foot Control & Back Up Limit Switches)

Back Up Limit Switch 2nd ✓
Perform *Limit Switch Test.*
Refer to: Section B - Limit Switches

Perform *Footswitch Test* 3rd ✓
Refer to: Section B - Foot Control

Perform *Back Relay Test* 4th ✓
Refer to: Section B - Main PC Board

Models: *Serial Numbers:*	***223 (all)*** *All*	***623 (all)*** *All*

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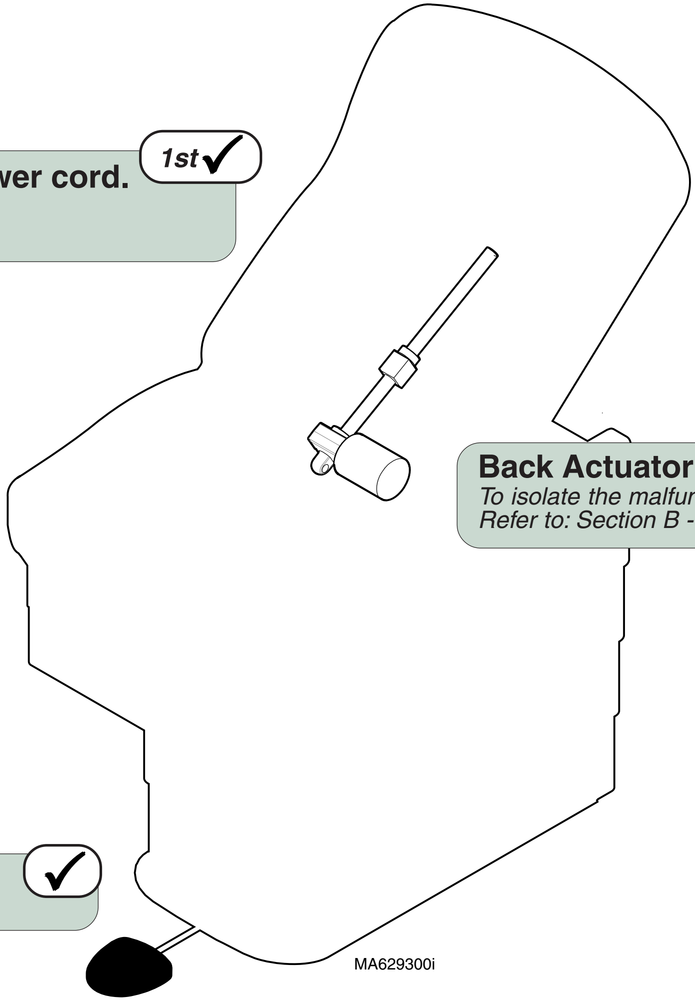
Troubleshooting

Function	Status	Problem
Back Up	◆	Back drifts down.
Back Down	◆	Back drifts down.

Refer To:	Go To Page:
Foot Control	B-6
Base / Back Actuator	B-11
Wiring Diagrams	D-1
Exploded Views / Part Numbers	E-1

Run back section up, then unplug power cord. 1st ✓
If drifting stops, perform *Footswitch Test.*
If drifting continues, check Back Actuator.



Back Actuator ✓
To isolate the malfunction,
Refer to: Section B - Base / Back Actuator

Perform *Footswitch Test* ✓
Refer to: Section B - Foot Control

Models: Serial Numbers:	***223 (all)*** *All*	***623 (all)*** *All*

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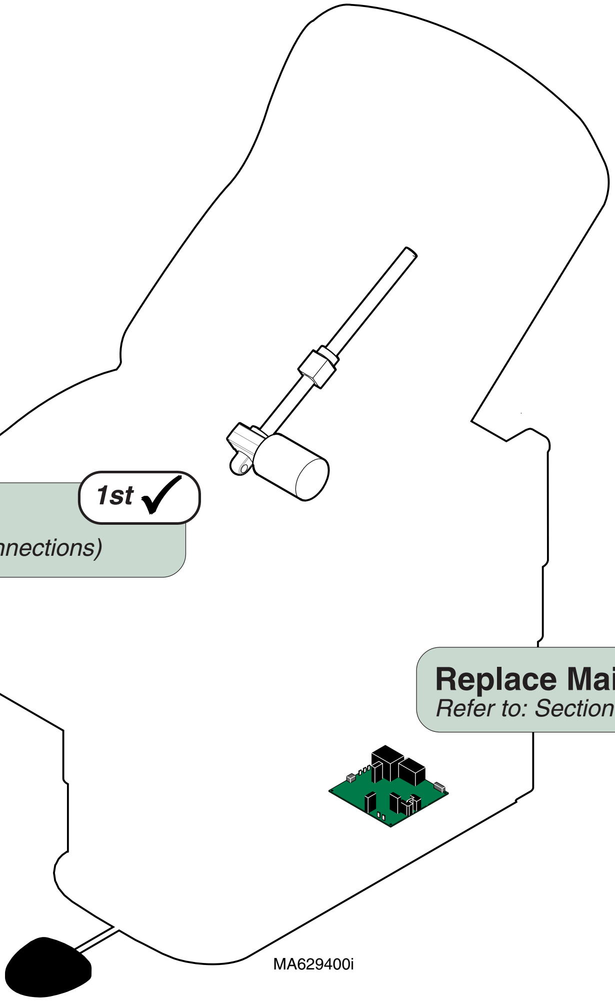
Troubleshooting

Refer To:	Go To Page:
Main PC Board Replacement	B-24
Wiring Diagrams	D-1
Exploded Views / Part Numbers	E-1

Function	Status	Problem
Back Up	◆	Press Back UP pedal, back section moves DOWN.
Back Down	◆	Press Back DOWN pedal, back section moves UP.



Wire connections *(reversed?)* 1st ✓

(Check Foot Control & Base Actuator motor connections)

Replace Main PC Board 2nd ✓

Refer to: Section B - Main PC Board

Back Up / Down
Power

Models:	***223 (all)***	***623 (all)***
Serial Numbers:	*All*	*All*

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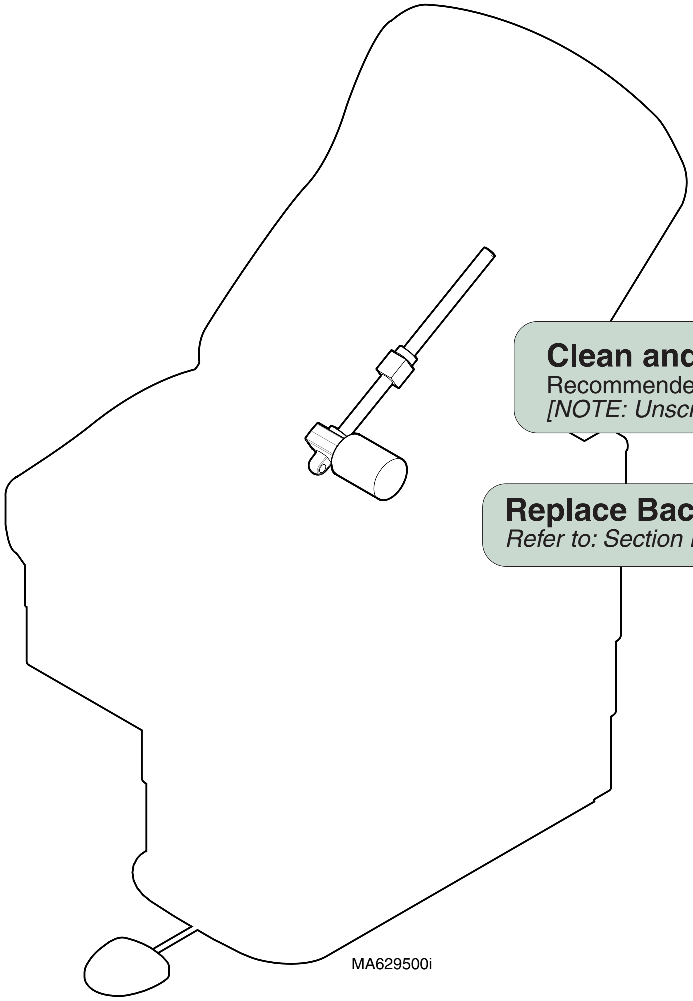
Troubleshooting

Function	Status	Problem
Back Up	◆	Noisy / grinding / squeaking
Back Down	◆	Noisy / grinding / squeaking

Refer To: **Go To Page:**
Back Actuator Replacement B-15
Wiring Diagrams D-1
Exploded Views / Part Numbers .. E-1



1st ✓ **Clean and lubricate back actuator threads.**
Recommended lubricant: Lithium grease
[NOTE: Unscrew the shaft cover to access actuator threads.]

3rd ✓ **Replace Back Actuator**
Refer to: Section B - Base / Back Actuator

Models: Serial Numbers:	***223 (all)*** *All*	***623 (all)*** *All*

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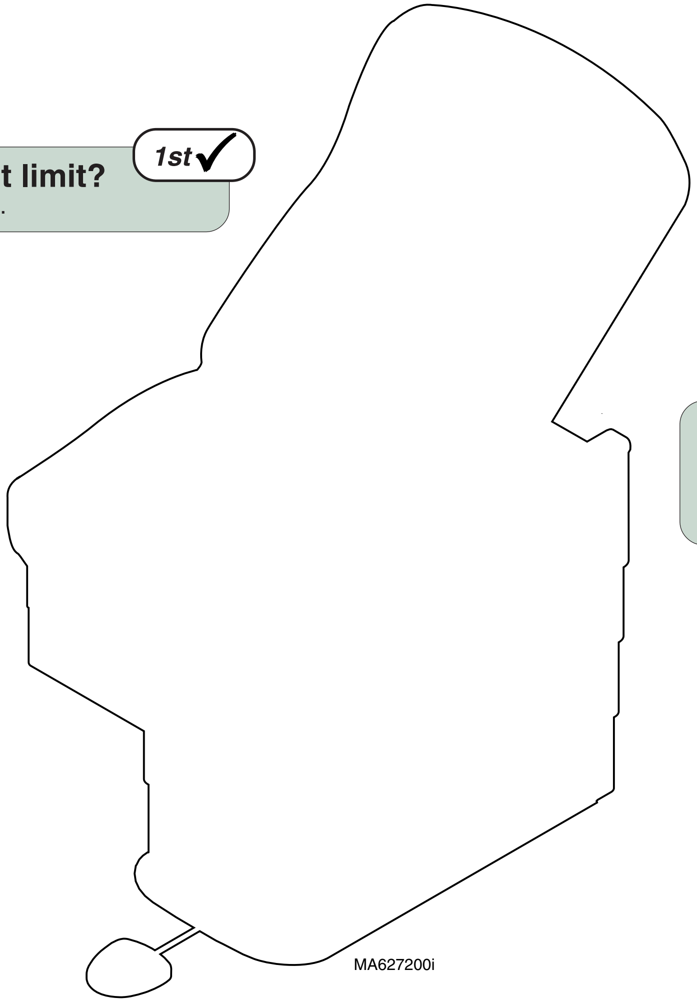
Troubleshooting

Refer To: **Go To Page:**
Wiring Diagrams D-1
Exploded Views / Part Numbers .. E-1

Function	Status	Problem
Back Up	◆	Moves slowly
Back Down	◆	Moves slowly

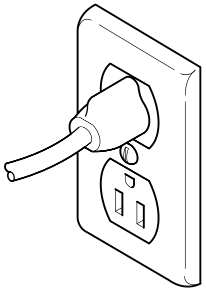
1st ✓

Did patient exceed 400 lb. weight limit?
Inform staff that max. patient weight is 400 lbs.



2nd ✓

Low voltage to table
Required voltage:
115 VAC models .... 115 ±10% VAC
230 VAC models .... 230 ±10% VAC



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Drawer Heater System (optional)

This illustration shows only the components that affect the drawer heater system.
A detailed description of current flow during this function also appears below.

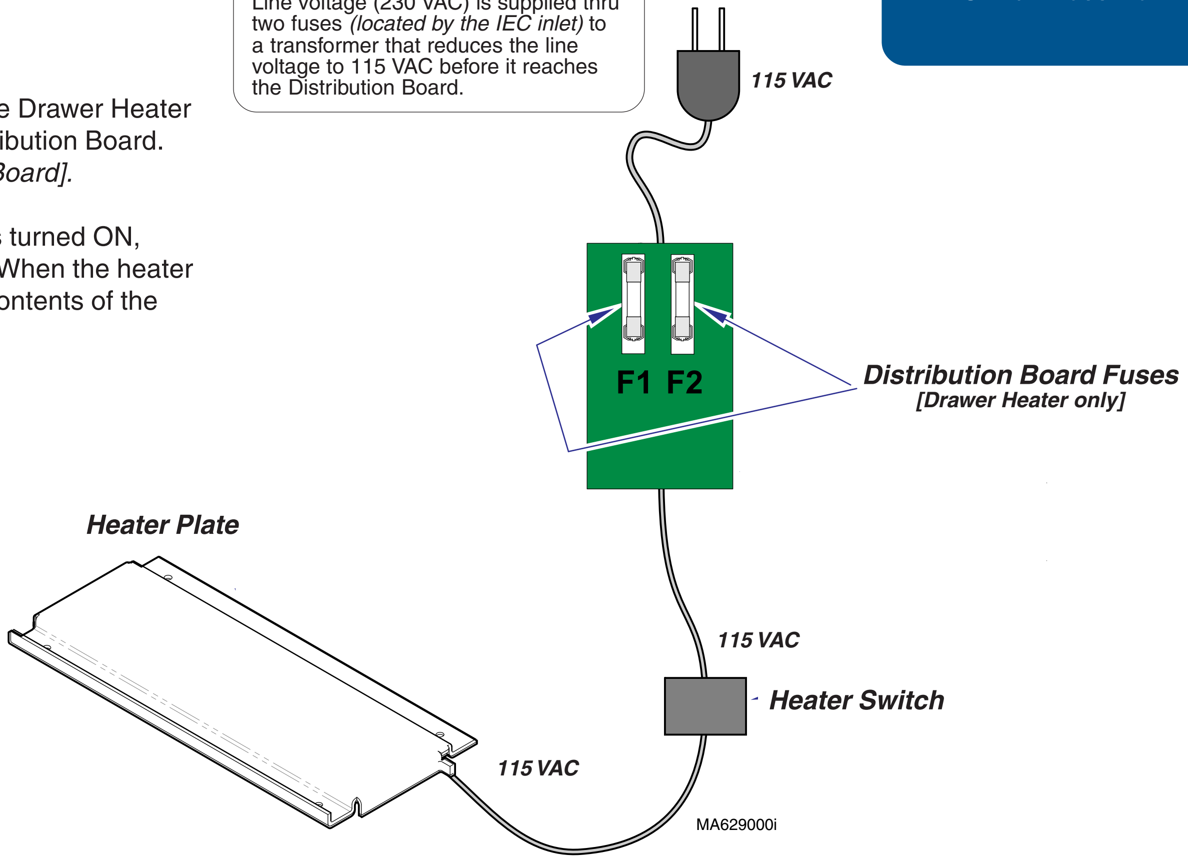
Troubleshooting
[Drawer Heater System]

Problem **Go To Page:**
Drawer Heater Does Not Warm Up:
  Switch Does Not Illuminate A-24
  Switch Illuminates A-25
Drawer Heater Works Properly:
  Switch Does Not Illuminate A-26

Drawer Heater Operation
115 VAC is supplied directly to the Drawer Heater switch thru two fuses on the Distribution Board. *[Voltage bypasses the Main PC Board].*

When the drawer heater switch is turned ON, current flows to the heater plate. When the heater plate is energized, it warms the contents of the drawer.

NOTE: ***230 VAC models only***
Line voltage (230 VAC) is supplied thru two fuses *(located by the IEC inlet)* to a transformer that reduces the line voltage to 115 VAC before it reaches the Distribution Board.



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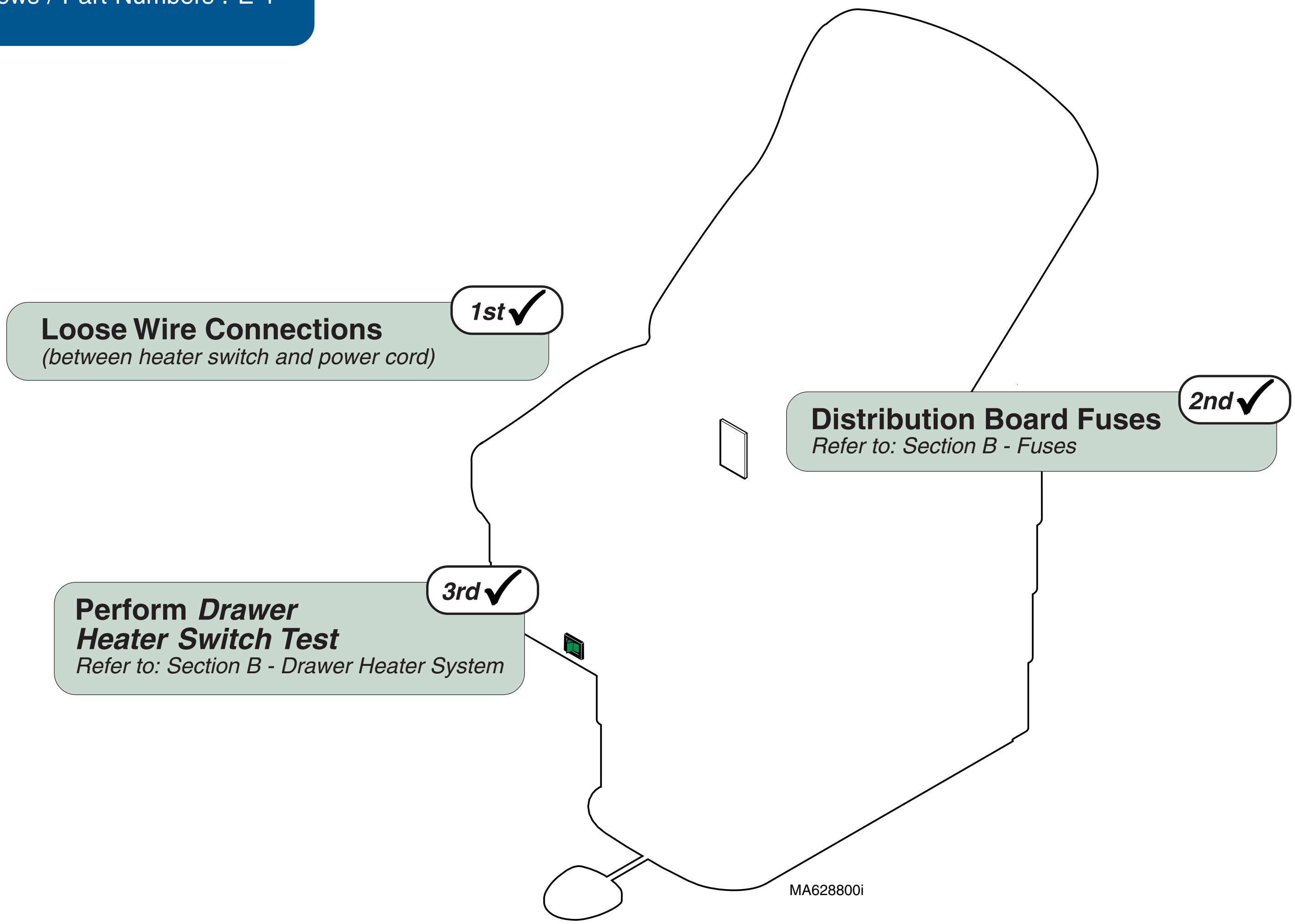
Troubleshooting

Function	Status	Problem
Drawer Heater	👎	Does not heat up.
Heater Switch	👎	Does not illuminate

Refer To: **Go To Page:**

Fuses B-2
Drawer Heater System B-25
Wiring Diagrams D-1
Exploded Views / Part Numbers . E-1



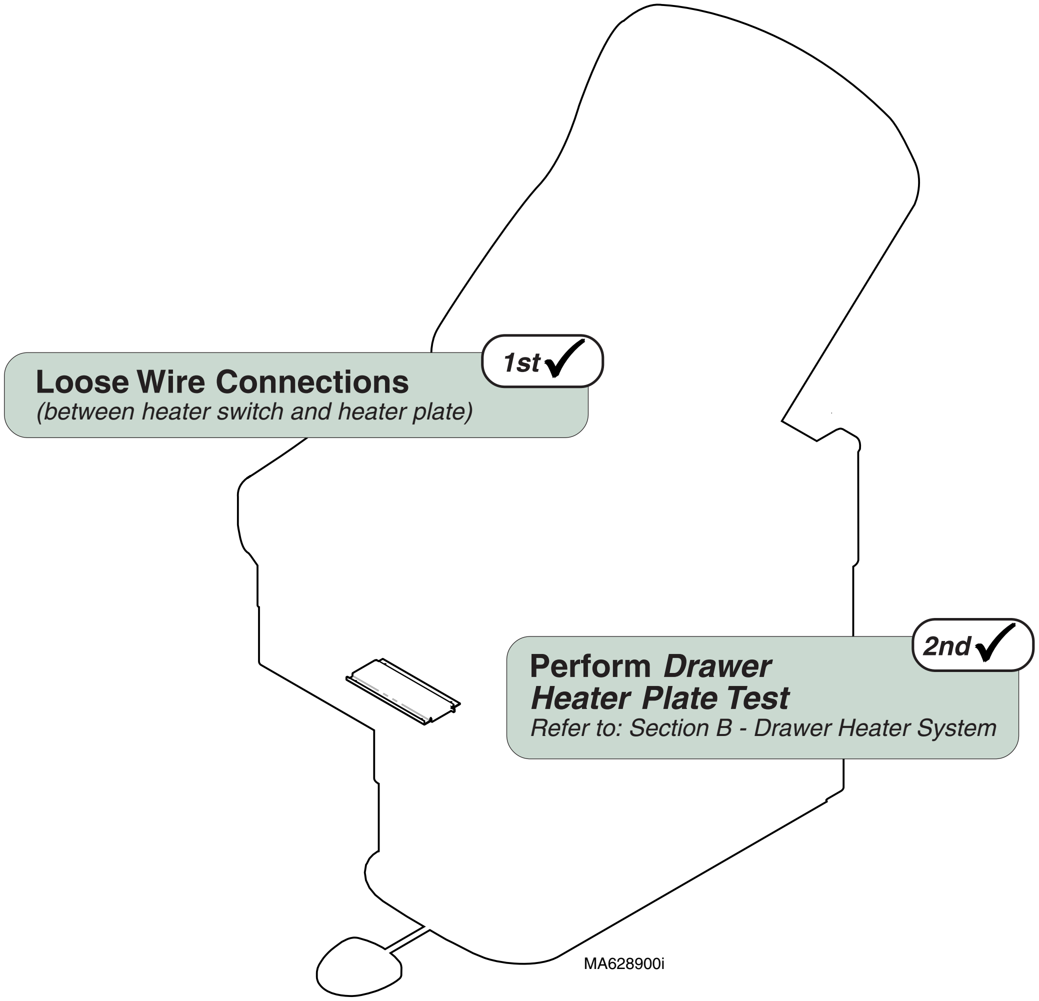
Loose Wire Connections 1st ✓
(between heater switch and power cord)

Distribution Board Fuses 2nd ✓
Refer to: Section B - Fuses

Perform *Drawer Heater Switch Test* 3rd ✓
Refer to: Section B - Drawer Heater System

Function	*Status*	*Problem*
Drawer Heater	👎	Does not heat up.
Heater Switch	👍	OK *(Illuminates)*

Refer To:	***Go To Page:***
Fuses	B-2
Drawer Heater System	B-25
Wiring Diagrams	D-1
Exploded Views / Part Numbers	E-1



1st ✓ **Loose Wire Connections**
(between heater switch and heater plate)

2nd ✓ **Perform *Drawer Heater Plate Test***
Refer to: Section B - Drawer Heater System

Models: Serial Numbers:	***222*** *(-003 /-004 /-007 /-008 /-010 /-016)*	***223*** *(-003 /-004 /-007 /-008 /-010 /-016)*	***622*** *(-002/-004/-006/-008)*	***623*** *(-002/-004/-008/-010/-011)*
	All	*All*	*All*	*All*

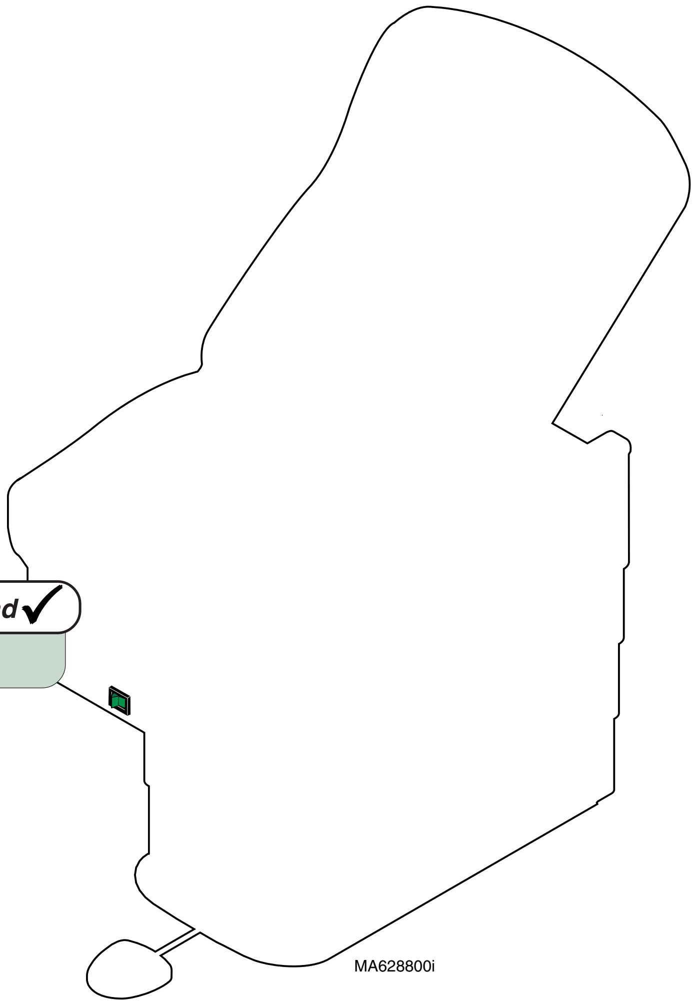
Go To Table Of Contents

Troubleshooting

Refer To: **Go To Page:**

Drawer Heater System B-25
Wiring Diagrams D-1
Exploded Views / Part Numbers . E-1

Function	*Status*	*Problem*
Drawer Heater	👍	OK
Heater Switch	👎	Does not illuminate



Replace Drawer Heater Switch *2nd* ✓
Refer to: Section B - Drawer Heater System

Models: *Serial Numbers:*	***222*** ***(-003/-004/-007/-008/-010/-016)*** *All*	***223*** ***(-003/-004/-007/-008/-010/-016)*** *All*	***622*** ***(-002/-004/-006/-008)*** *All*	***623*** ***(-002/-004/-008/-010/-011)*** *All*

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Table Receptacle (optional)

This illustration shows only the components that affect the table receptacle.
A detailed description of current flow also appears below.

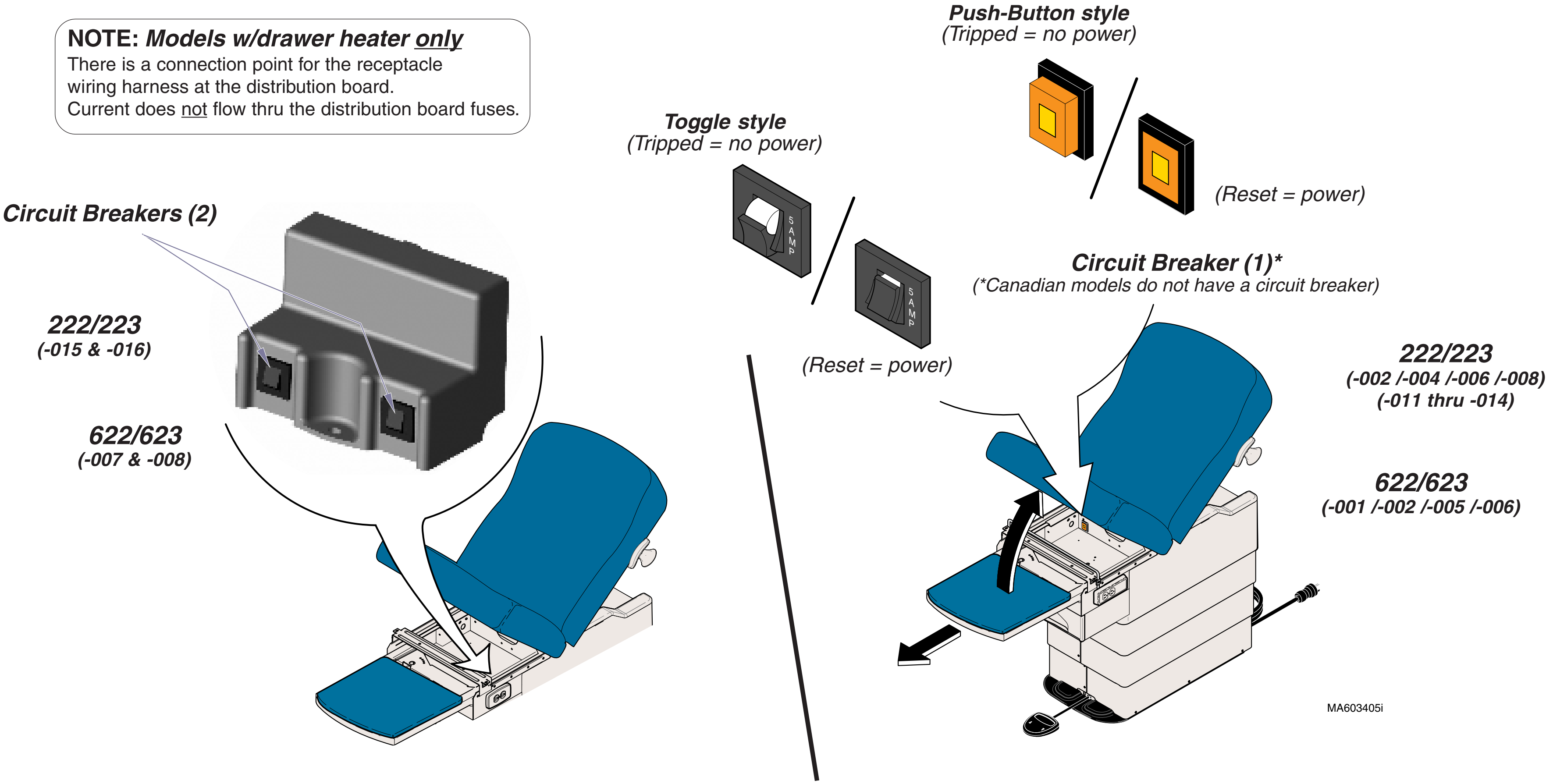
Troubleshooting
[Table Receptacle]

Go To Page:

Problem
No Power At Receptacle A-28

Table Receptacle
115 VAC is supplied directly to the table receptacle thru the circuit breaker(s)*.
[Voltage bypasses the Main PC Board].

NOTE: ***Models w/drawer heater only***
There is a connection point for the receptacle wiring harness at the distribution board.
Current does not flow thru the distribution board fuses.


Circuit Breakers (2)
222/223
(-015 & -016)
622/623
(-007 & -008)
Toggle style
(Tripped = no power)
5 AMP
5 AMP
(Reset = power)
Push-Button style
(Tripped = no power)
(Reset = power)
Circuit Breaker (1)*
(*Canadian models do not have a circuit breaker)
222/223
(-002 /-004 /-006 /-008)
(-011 thru -014)
622/623
(-001 /-002 /-005 /-006)
MA603405i

Models: Serial Numbers:	**222** (-002 /-004 /-006 /-008) (-011 thru -016) All	**223** (-002 /-004 /-006 /-008) (-011 thru -016) All	**622** (-001 /-002) (-005 thru -008) All	**623** (-001 /-002) (-005 thru -008) All

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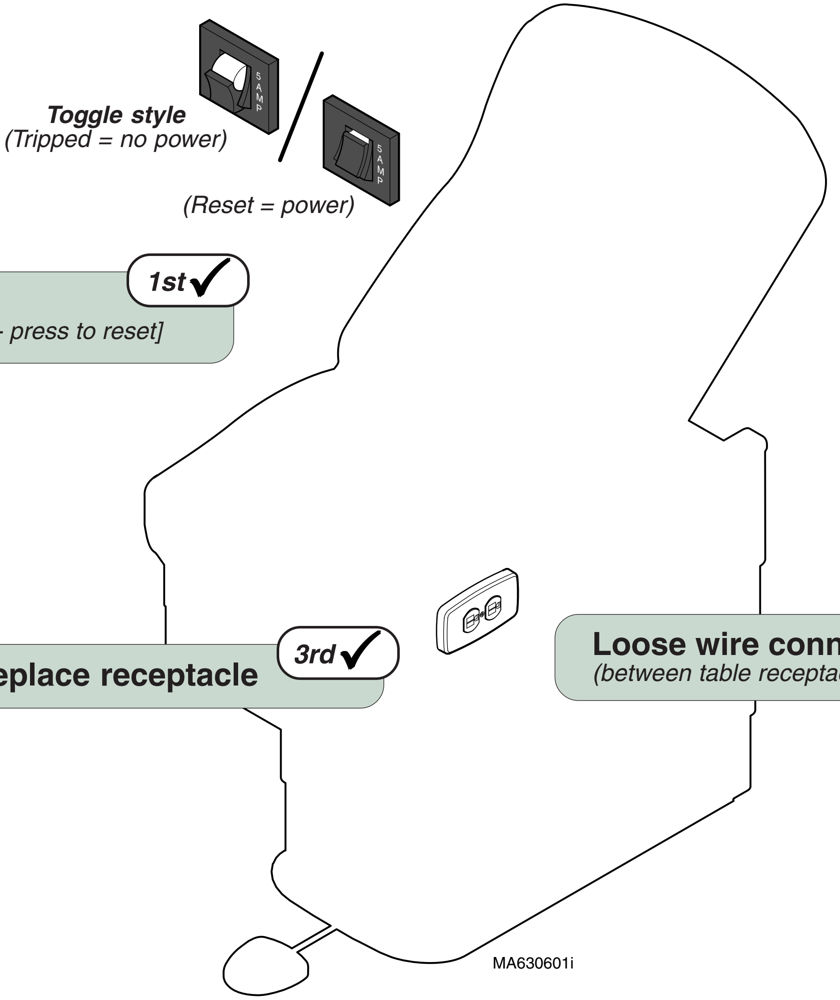
Troubleshooting

Refer To: **Go To Page:**

Wiring Diagrams D-1
Exploded Views / Part Numbers .. E-1

Function	Status	Problem
Table Receptacle	✗	No power.
All other functions	✓	OK



1st ✓ Is circuit breaker tripped?
[Lift seat section to access circuit breaker(s) - press to reset]

2nd ✓ Loose wire connections
(between table receptacle and power cord)

3rd ✓ Replace receptacle

Models: Serial Numbers:	**222**	**223**	**622**	**623**
	(-002 /-004 /-006 /-008) (-011 thru -016) All	(-002 /-004 /-006 /-008) (-011 thru -016) All	(-001 /-002) (-005 thru -008) All	(-001 /-002) (-005 thru -008) All

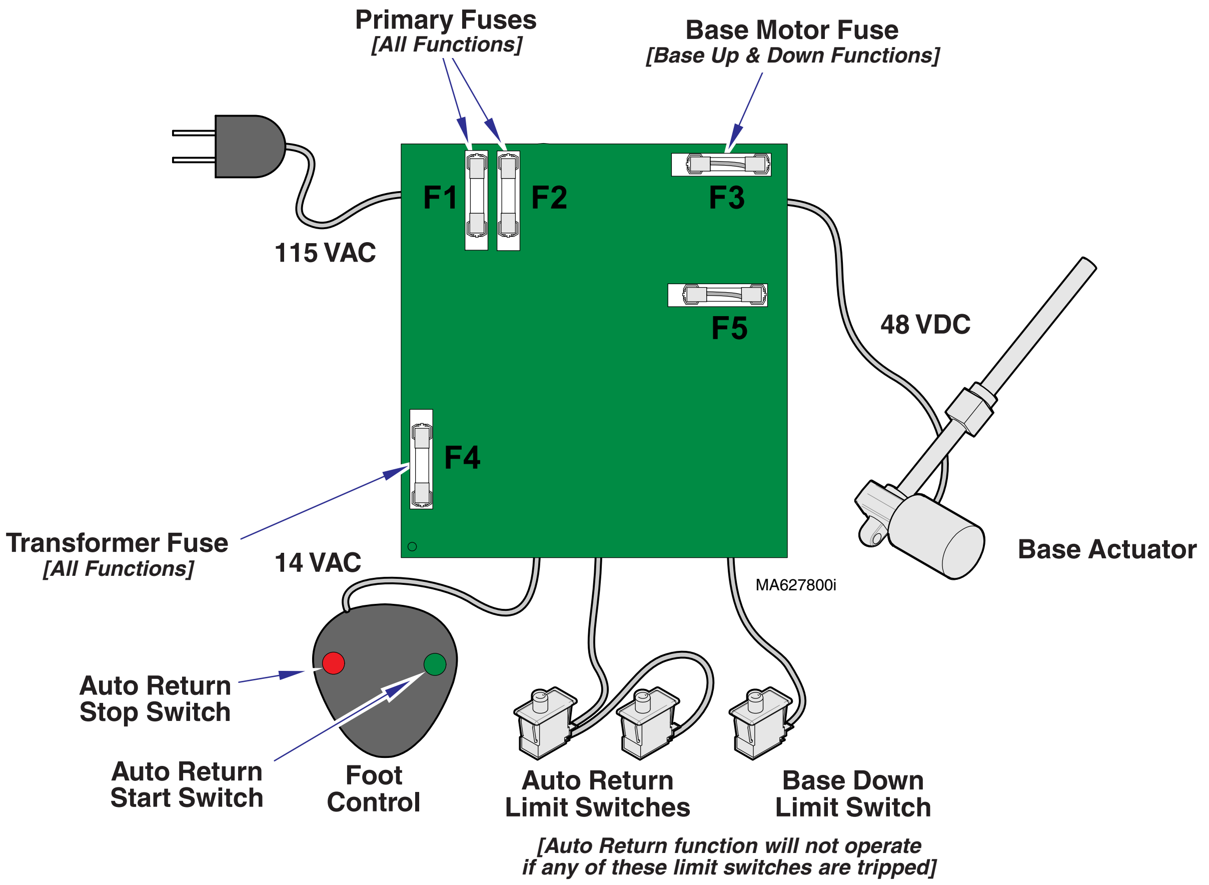
Auto Return Function

This illustration shows only the components that affect the Auto Return function.

Refer to the following page for a detailed description of current flow during this function.

Troubleshooting
[Auto Return Function]

Problem Go To Page:
Auto Return Function Does Not Work /
Base Down Function:
Malfunctioning A-2
Works Properly.............................. A-31


Primary Fuses
[All Functions]
Base Motor Fuse
[Base Up & Down Functions]
F1
F2
F3
F5
F4
115 VAC
48 VDC
Transformer Fuse
[All Functions]
14 VAC
Base Actuator
MA627800i
Auto Return Stop Switch
Auto Return Start Switch
Foot Control
Auto Return Limit Switches
Base Down Limit Switch
[Auto Return function will not operate if any of these limit switches are tripped]

Troubleshooting

Auto Return Function

Power To Foot Control

115 VAC is supplied thru the two primary fuses *(F1 & F2)* to the transformer on the PC board. *[F4 fuse protects the transformer]*.

The transformer reduces the line voltage and supplies 14 VAC to the foot control.

Auto Return Operation

NOTE
If either of the Auto Return limit switches or the Base Down limit switch are tripped (open), the Auto Return function will not operate.

When the Auto Return Switch is depressed (closed), current *(14 VAC)* flows thru the switch, to the PC Board.

NOTE
The Base Up / Down relay, located on the PC Board, has four contacts (DPDT):
(2) Normally Open: Base Up function
(2) Normally Closed: Base Down function

When this voltage is applied, current *(48 VDC)* flows to the actuator motor thru the (2) Normally Closed contacts of the Base Up / Down relay.
[The relay does not energize].

When voltage flows to the actuator thru the Normally Closed contacts of the relay, the actuator motor runs lowering the table.

Actuator Motor runs until:

1. Stop button is depressed.
2. Auto Return limit switch(es) is tripped.
3. 18 second software time limit is reached.
4. Base Down limit switch is tripped.
5. Fuse(s) opens (blows).
   [Primary, Base Motor, Transformer fuse]

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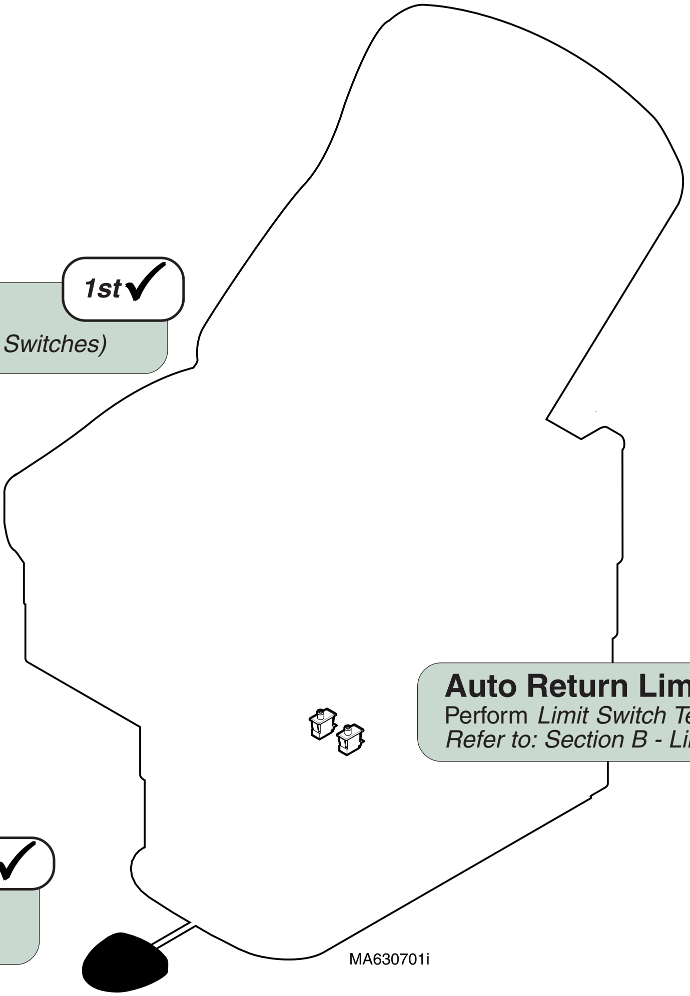
Function	Status	Problem
Auto Return	👎	No movement
Base Down	👍	OK

Refer To:	Go To Page:
Limit Switches	B-4
Foot Control	B-6
Wiring Diagrams	D-1
Exploded Views / Part Numbers	E-1



Loose Wire Connections 1st ✓
(esp. Foot Control, Auto Return Limit Switches)

Auto Return Limit Switches *2nd* ✓
Perform *Limit Switch Test.*
Refer to: Section B - Limit Switches

Perform *Footswitch Test* *3rd* ✓
Test Auto Return Start & Stop switches
Refer to: Section B - Foot Control

Models: ***623*** ***(all)***
Serial Numbers: *All*

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Upholstery Heater System (optional)

This illustration shows only the components that affect the Upholstery Heater System.
A detailed description of current flow during this function also appears below.

Troubleshooting
[Upholstery Heater System]

Problem **Go To Page:**

Heater Does Not Warm Up:
Switch Does Not Illuminate A-33
Switch Illuminates A-34
Heater Works Properly:
Switch Does Not Illuminate A-35

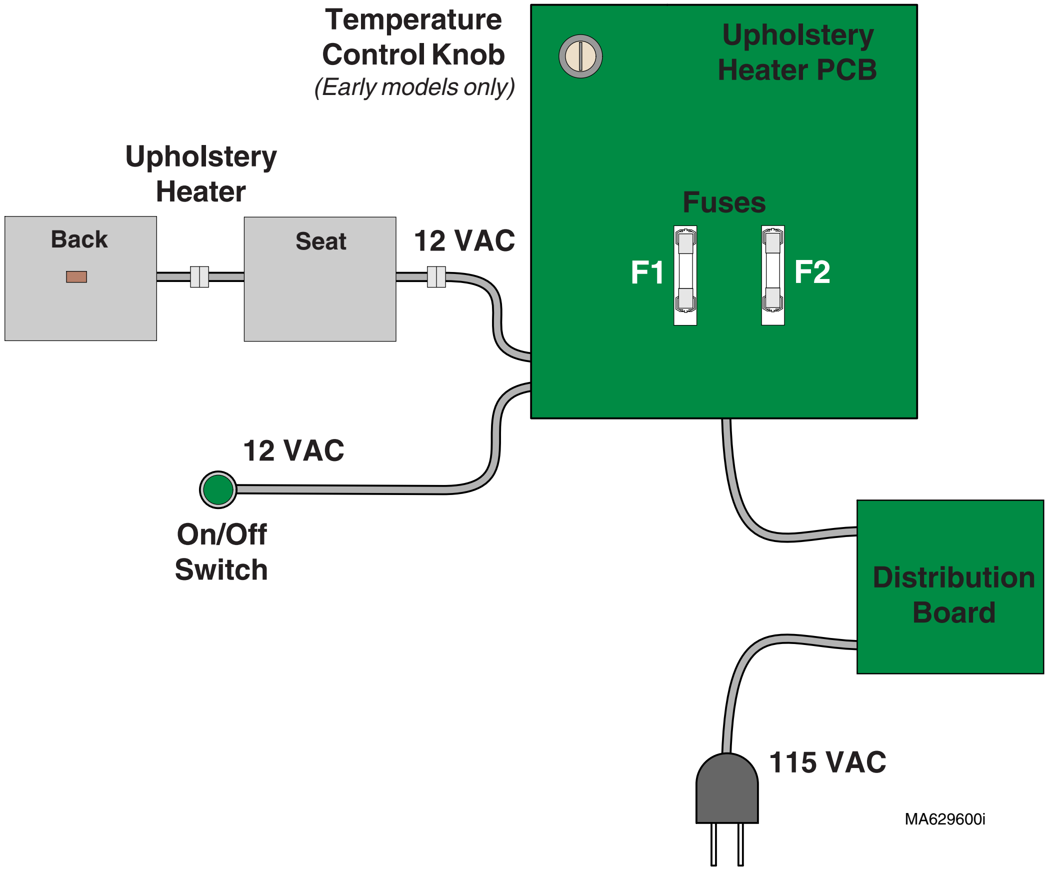
Upholstery Heater Operation
115 VAC is supplied thru the IEC inlet to the Distribution PC board and then to the Upholstery Heater PC board at J2 & J3. Fuses F1 and F2 protect the circuit. Circuitry on PC board converts 115 VAC to 12 VAC.

Depressing and releasing the momentary On/ Off Switch supplies approximately 12 VAC to the Upholstery Heater. A timer on the PC board *(initiated when the On/ Off Switch is depressed)* keeps the heater activated for an 8 hour period unless the Switch is depressed Off.

(Temperature knob not present on later models)
The upholstery heater temperature can be regulated by the operator. Turning the temperature knob will increase or decrease the voltage to the heater. The temperature can be varied to a maximum of 105° F (41° C).

A thermostat, located in Back Heating Pad, opens at 131° F (55°C) +/- 10% removing power from both Back and Seat heating elements.

Upholstery Heater runs until:
1. Stop button is depressed.
2. 8 hour time limit is reached.
3. Fuse(s) on Upholstery Heater PCB opens (blows).

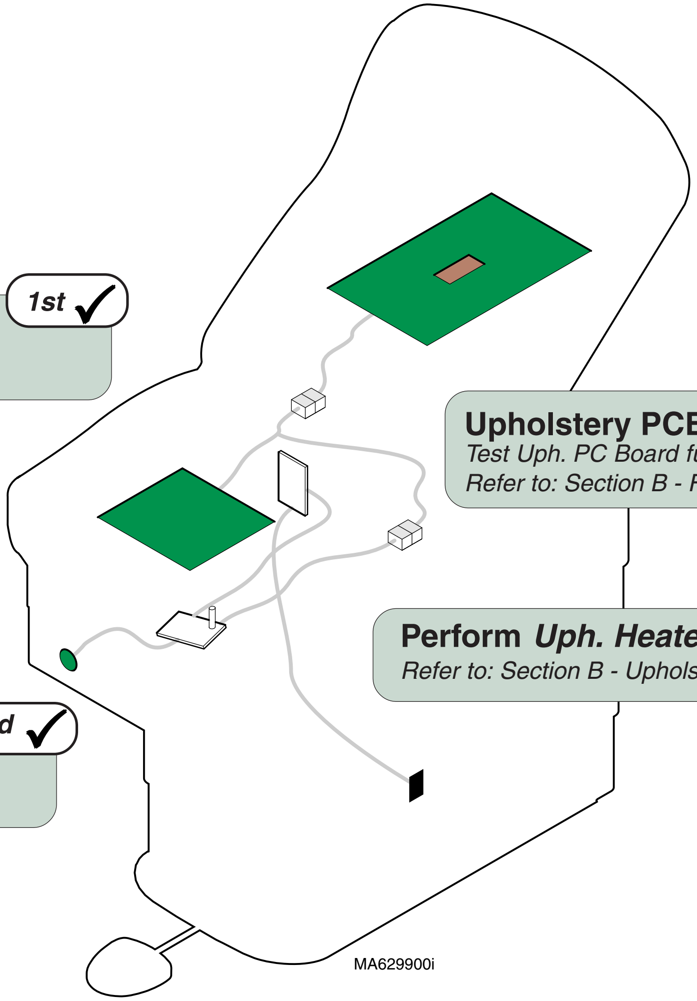

Temperature Control Knob
(Early models only)
Upholstery Heater PCB
Upholstery Heater
Back
Seat
12 VAC
Fuses
F1
F2
12 VAC
On/Off Switch
Distribution Board
115 VAC
MA629600i

Go To Table Of Contents

Troubleshooting

Function	Status	Problem
Upholstery Heater	👎	Does not heat up.
Heater Switch	👎	Does not illuminate

Refer To:	**Go To Page:**
Fuses	B-2
Uph. Heater PC Board Test	B-31
Uph. Heater Switch Test	B-35
Wiring Diagrams	D-1
Exploded Views / Part Numbers	E-1



1st ✓
Loose Wire Connections
Distribution Board to Upholstery PCB, Upholstery PCB to Heater Switch.

2nd ✓
Upholstery PCB Fuse(s)
Test Uph. PC Board fuses.
Refer to: Section B - Fuses

3rd ✓
Perform *Uph. Heater Switch Test*
Refer to: Section B - Upholstery Heater System

4th ✓
Perform *Uph. Heater PC Board Test*
Refer to: Section B - Upholstery Heater System

Models: Serial Numbers:	**622** (-002 /-004 /-006-008) All	**623** (-002 /-004 /-008 / -010) All

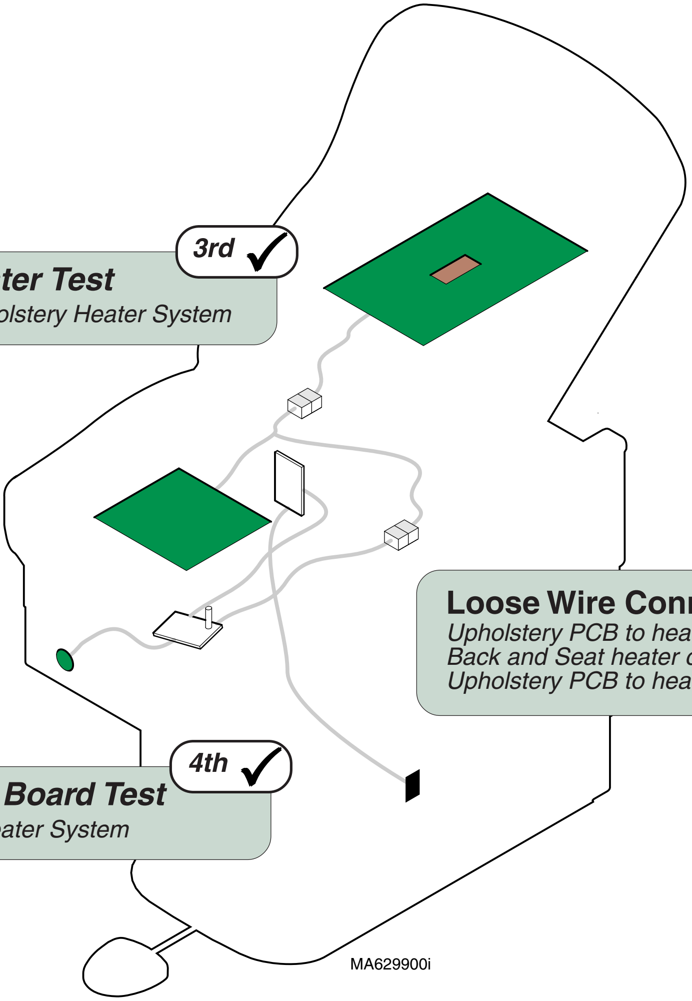
Go To Table Of Contents

Troubleshooting

Refer To: **Go To Page:**

Fuses B-2
Uph. Heater PC Board Test B-31
Uph. Heater Test B-34
Uph. Heater Switch Test B-35
Wiring Diagrams D-1
Exploded Views / Part Numbers . E-1

Function	*Status*	*Problem*
Upholstery Heater	👎	Does not heat up.
Heater Switch	👍	Illuminates.



3rd ✓

Perform *Uph. Heater Test*
Refer to: Section B - Upholstery Heater System

1st ✓

Loose Wire Connections
Upholstery PCB to heater,
Back and Seat heater connection.
Upholstery PCB to heater switch.

2nd ✓

Perform *Uph. Heater Switch Test*
Refer to: Section B - Upholstery Heater System

4th ✓

Perform *Uph. Heater PC Board Test*
Refer to: Section B - Upholstery Heater System

Models: *Serial Numbers:*	***622*** ***(-002 /-004 /-006-008)*** *All*	***623*** ***(-002 /-004 /-008 / -010)*** *All*

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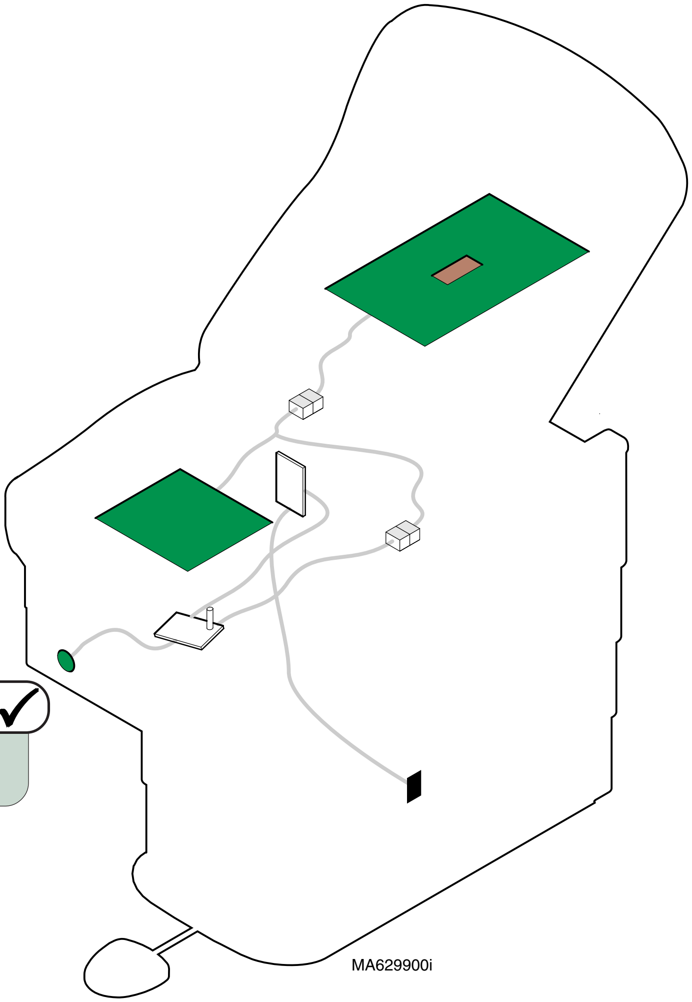
Function	Status	Problem
Upholstery Heater	👍	OK
Heater Switch	👎	Does not illuminate

Refer To: **Go To Page:**
Upholstery Heater Switch
Replacement B-35
Wiring Diagrams......................... D-1
Exploded Views / Part Numbers . E-1



1st ✓

Replace Uph. Heater Switch

Refer to: Section B - Upholstery Heater System

Models: Serial Numbers:	622 (-002 /-004 /-006-008) All	623 (-002 /-004 /-008 / -010) All

Go To Table Of Contents

Troubleshooting

Go To Table Of Contents

Section B

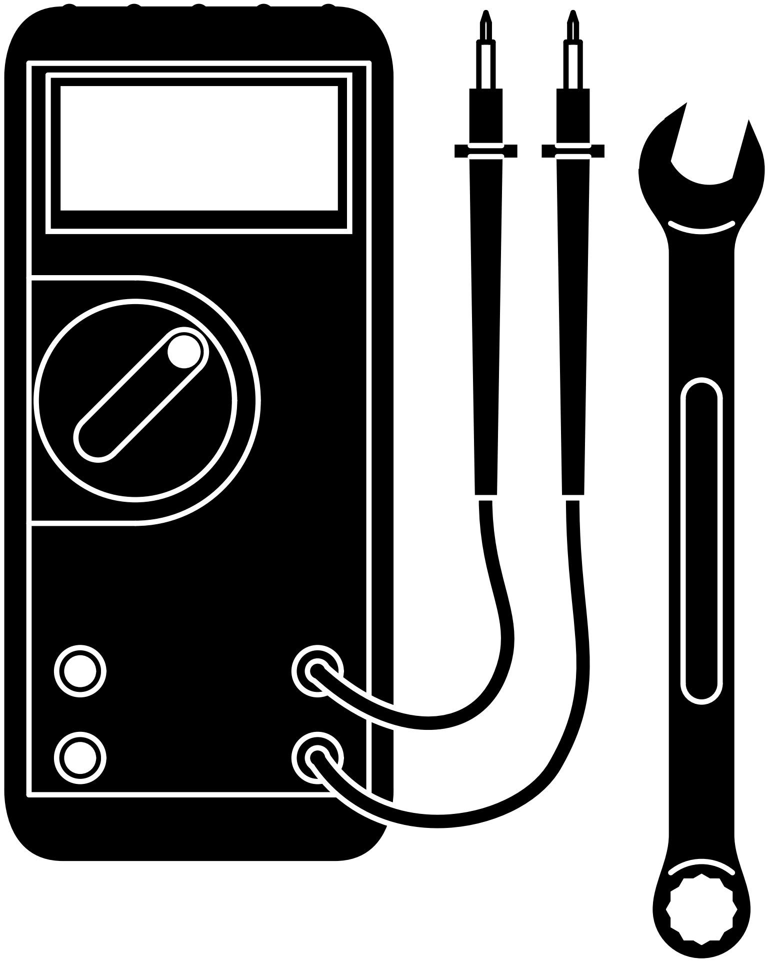
Component Testing & Repair

Go To Page:

Components

Fuses B-2
Limit Switches B-4
Foot / Hand Control B-6
Base Actuator B-11
Back Actuator *(power)* B-11
Back Release Mechanism *(manual)* B-17
Main PC Board B-21
Drawer Heater System B-25
Upholstery Heater System B-31

Click on the Go To Page button and enter the desired page number. (Note: Letters are case sensitve. ex. B-2)



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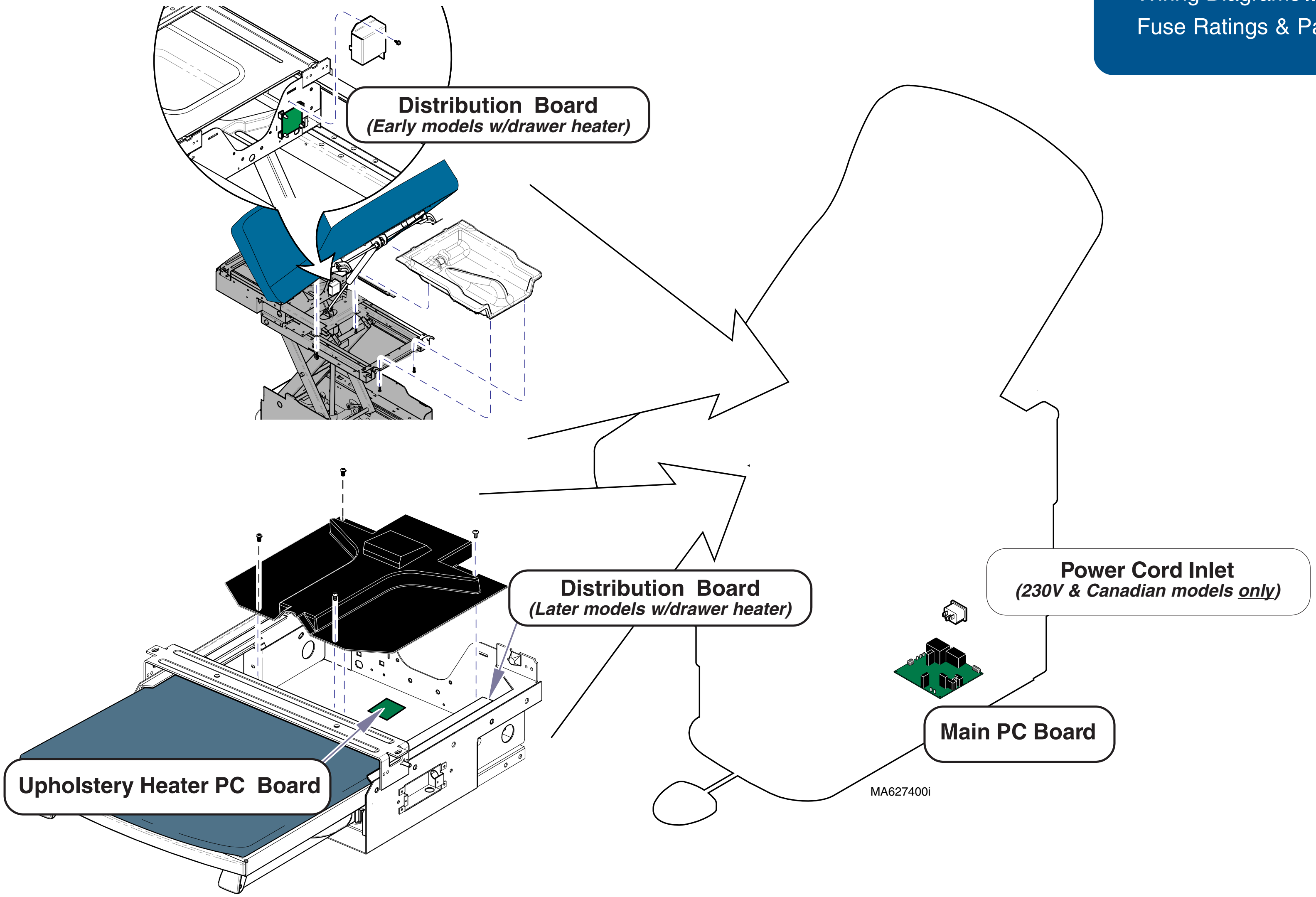
Component Testing & Repair

Fuses

Location

Fuses Go To Page:
Location B-2
Fuse Test B-3
Access Procedures C-1
Wiring Diagrams D-1
Fuse Ratings & Part Numbers E-25


Distribution Board
(Early models w/drawer heater)
Distribution Board
(Later models w/drawer heater)
Power Cord Inlet
(230V & Canadian models only)
Main PC Board
Upholstery Heater PC Board
MA627400i

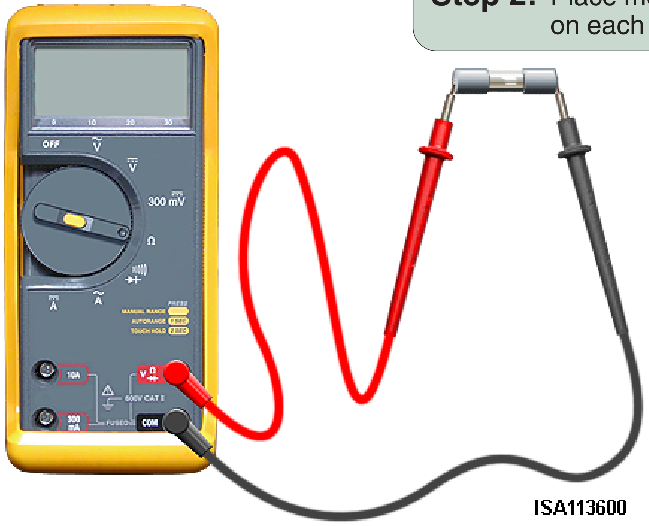
Models: ***All***
Serial Numbers: *All*

Go To Table Of Contents

Fuses - *continued*

Fuse Test

Fuse Test
Step 1: Set meter to 200 **Ω.**


OFF
300 mV
Ω
10A
300 mA
COM
600V CAT II
FUSED
MANUAL RANGE
AUTORANGE
TOUCH HOLD
ISA113600

Fuse Test
Step 2: Place meter probes on each end of fuse.

Meter Readng	*Status*	*Required Action*
OL	👎	Replace fuse.
Any resistance reading	👍	Fuse is good.

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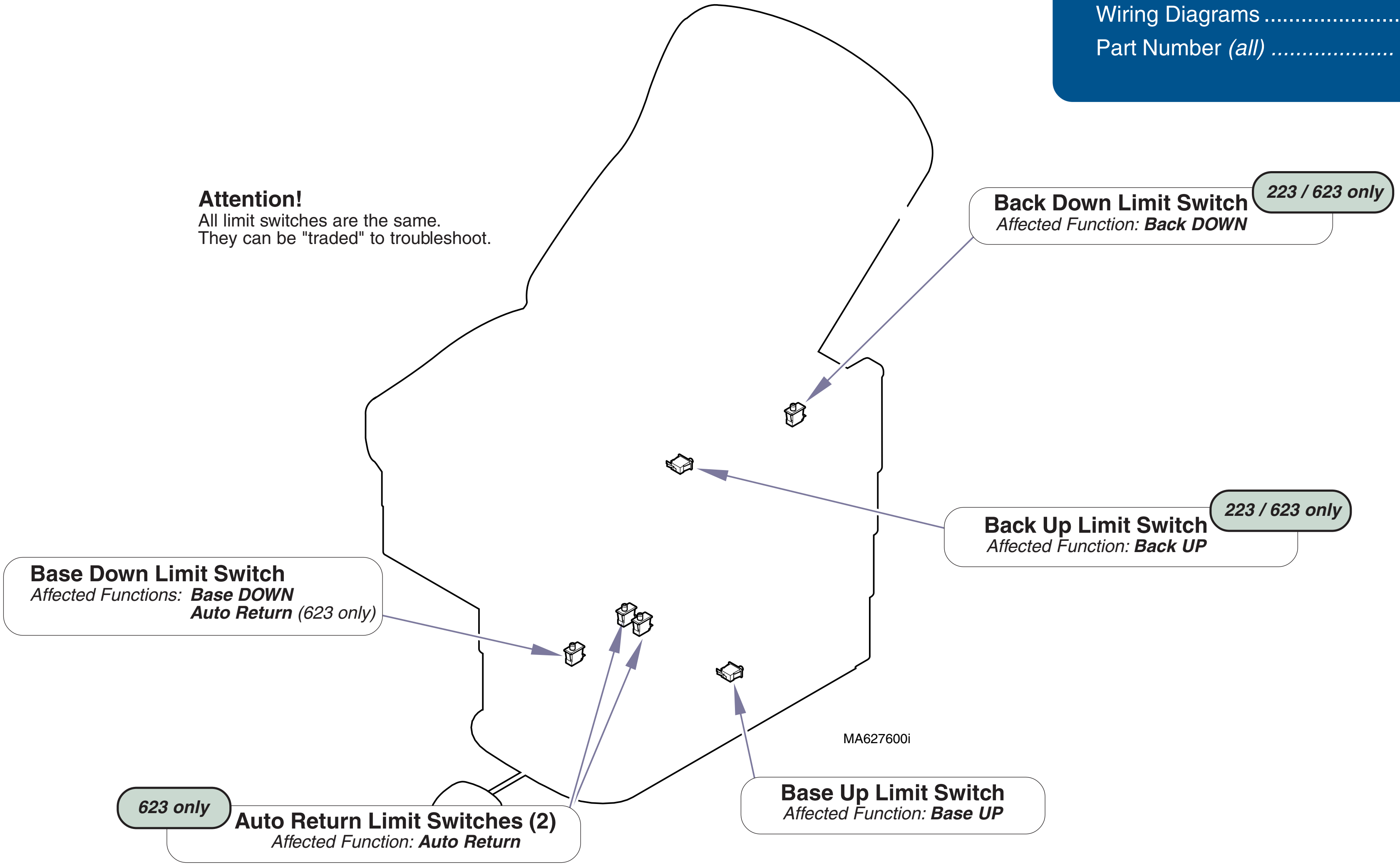
Limit Switches

Location

Limit Switches **Go To Page:**
Location B-4
Limit Switch Test B-5
Access Procedures C-1
Wiring Diagrams D-1
Part Number *(all)* **015-1055-00**

Attention!
All limit switches are the same.
They can be "traded" to troubleshoot.



Back Down Limit Switch *223 / 623 only*
Affected Function: ***Back DOWN***

Back Up Limit Switch *223 / 623 only*
Affected Function: ***Back UP***

Base Down Limit Switch
Affected Functions: ***Base DOWN***
Auto Return *(623 only)*

623 only **Auto Return Limit Switches (2)**
Affected Function: ***Auto Return***

Base Up Limit Switch
Affected Function: ***Base UP***

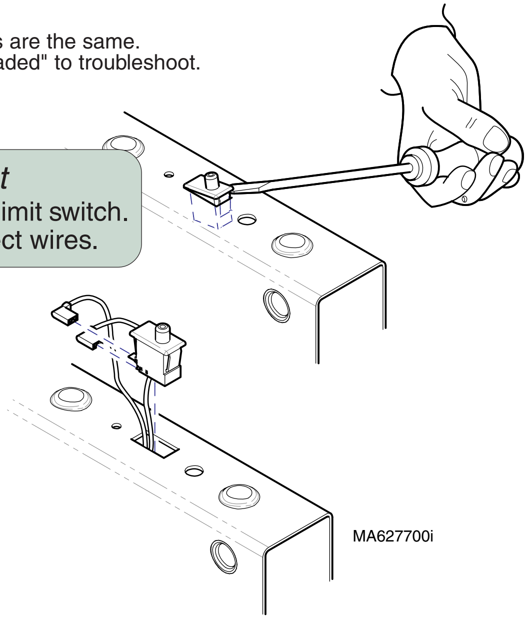
Go To Table Of Contents

Limit Switches - *continued*

Limit Switch Test

Attention!
All limit switches are the same.
They can be "traded" to troubleshoot.

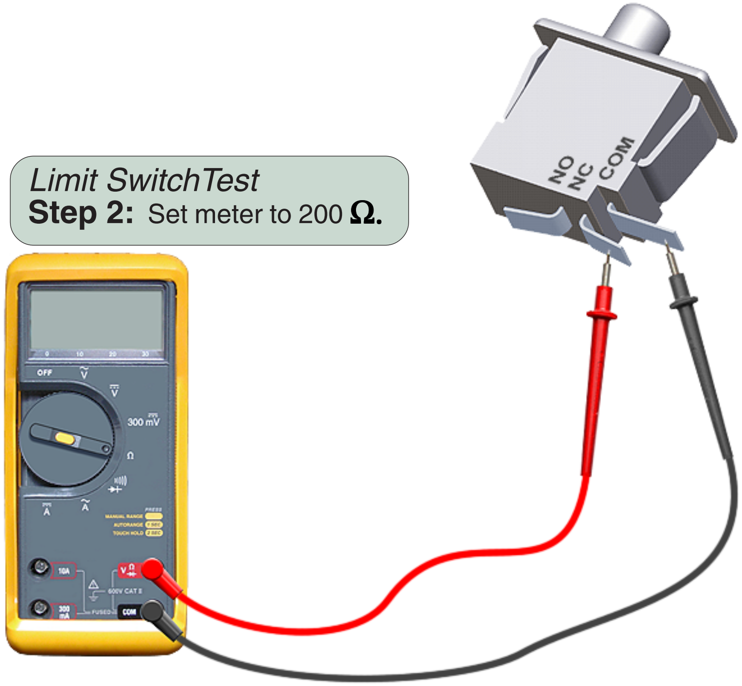
Limit Switch Test
Step 1: Remove limit switch.
Disconnect wires.



Limit Switch Test
Step 3: Place meter probes on ***COM*** *and* ***NC*** terminals.

Note: *Check switch 'tripped' and 'untripped'.*

Limit SwitchTest
Step 2: Set meter to 200 **Ω.**



With switch 'tripped'...

Meter Readng	***Status***	***Required Action***
OL	👍	Switch is good. Perform next check.
less than or = to **5 ohms**	👎	Replace switch

With switch 'untripped'...

Meter Readng	***Status***	***Required Action***
OL	👎	Replace switch
Any resistance reading	👍	Switch is good. Perform next check.

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Foot / Hand Control

Foot Switch Test - 222 / 622

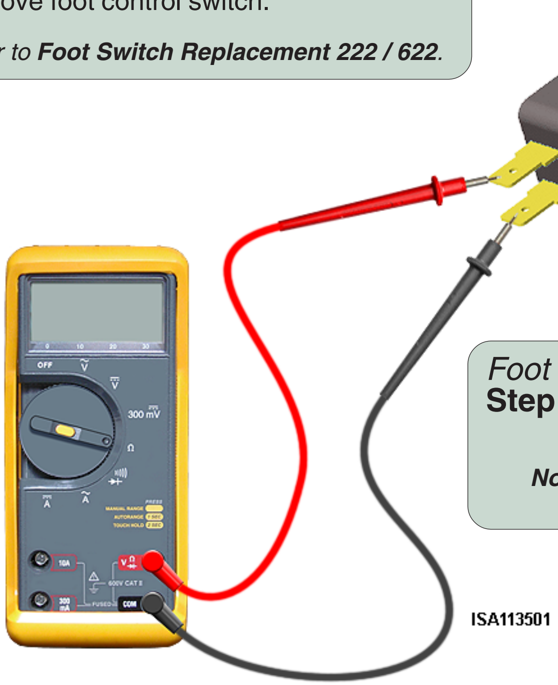
Foot SwitchTest
Step 1: Remove foot control switch.

Note: *Refer to* ***Foot Switch Replacement 222 / 622****.*

Foot Switch Test
Step 2: Set meter to **Ω.**

Foot Switch Test
Step 3: Place meter probes on ***COM*** *and* ***NO*** terminals.

Note: *Check switch 'tripped' and 'untripped'.*



Foot / Hand Control

Go To Page:

Foot Switch Test - *222 / 622* B-6
Foot / Hand Control Test - *223 / 623* B-7
Foot Switch Replacement:
222 / 622 .... B-8
223 / 623 (old style foot control) B-9
Switch Membrane Replacement:
223 / 623 (new style foot control)....... B-10
623 Hand Control B-10
Wiring Diagrams D-1
Exploded View / Part Numbers:
Foot Contol - 222 / 622 .... E-27
Foot Control - 223 .... E-28*
Foot Control - 623 .... E-29*
Hand Control - 623 .... E-30

** multiple pages due to model / serial # break*

With switch 'tripped'...

Meter Readng	*Status*	*Required Action*
less than or = to **5 ohms**	👍	Switch is good. Perform next check.
OL	👎	Replace switch

With switch 'untripped'...

Meter Readng	*Status*	*Required Action*
Any resistance reading	👎	Replace switch.
OL	👍	Switch is good. Perform next check.

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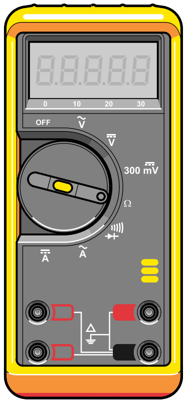
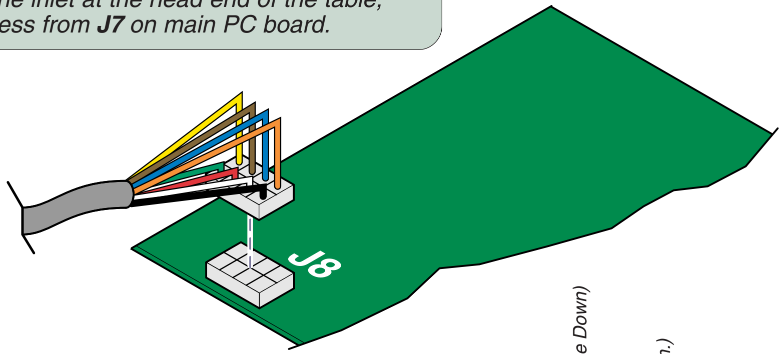
***Foot / Hand Control** - continued*

Foot / Hand Control Test - 223 / 623

Foot / Hand Control Test
Step 1: Disconect wire harness from J8* on main PC board.

*** Note:** *Model 623 only: If the foot or hand control to be tested is plugged into the inlet at the head end of the table, disconnect harness from **J7** on main PC board.*



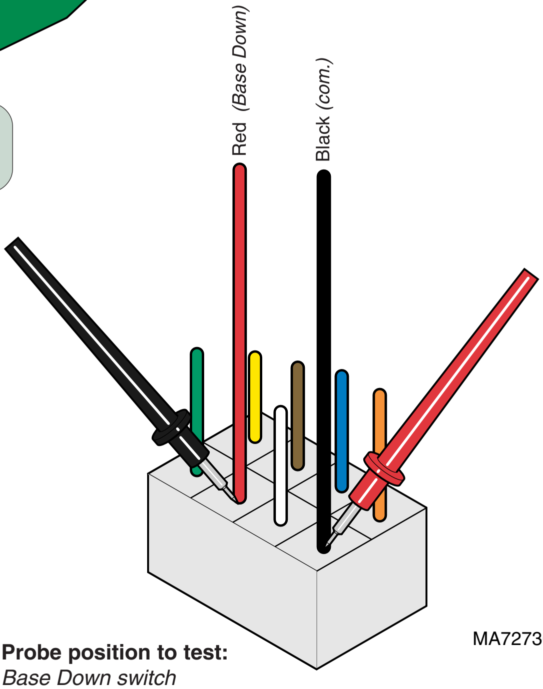


Foot / Hand Control Test
Step 2: Set meter to **Ω.**

Foot / Hand Control Test
Step 3: Place one meter probe on black wire *(common)* of foot / hand control harness.

Place other meter probe on the wire that corresponds to the switch to be tested:

Switch	***Wire Color***
Base Up	*white*
Base Down	*red*
Back Up	*green*
Back Down	*orange*
Auto Return	*blue*
Stop	*brown*



Probe position to test:
Base Down switch

With switch 'untripped'...

Meter Readng	***Status***	***Required Action***
Any resistance reading	👎	Replace switch / switch membrane.
OL	👍	Switch is good. Perform next check.

With switch 'tripped'...

Meter Readng	***Status***	***Required Action***
less than or = to **5 ohms**	👍	Switch is good. Perform next check.
OL	👎	Replace switch / switch membrane.

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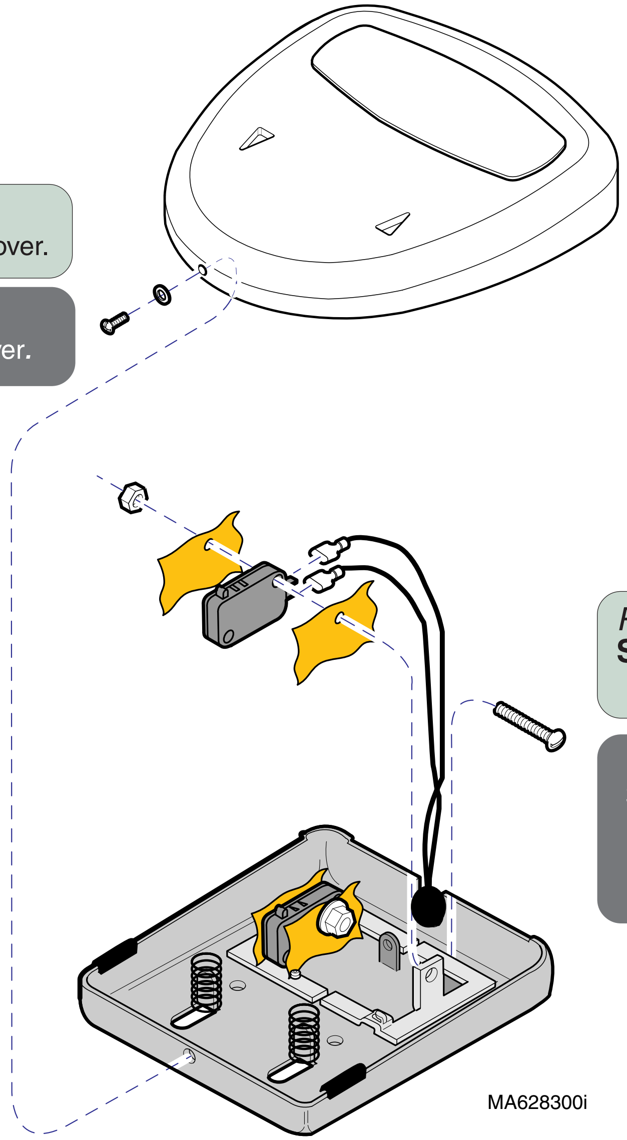
Foot / Hand Control *- continued*

Foot Switch Replacement - 222 / 622



Removal
Step 1: Remove cover.

Installation
Step 2: Install cover.

Removal
Step 2: Remove switch.
Disconnect wires.

Installation
Step 1: Install switch.
Connect wires.

Note: *Be sure insulating material is in place.*

Models: *Serial Numbers:*	***222*** *(all)* *All*	***622*** *(all)* *All*

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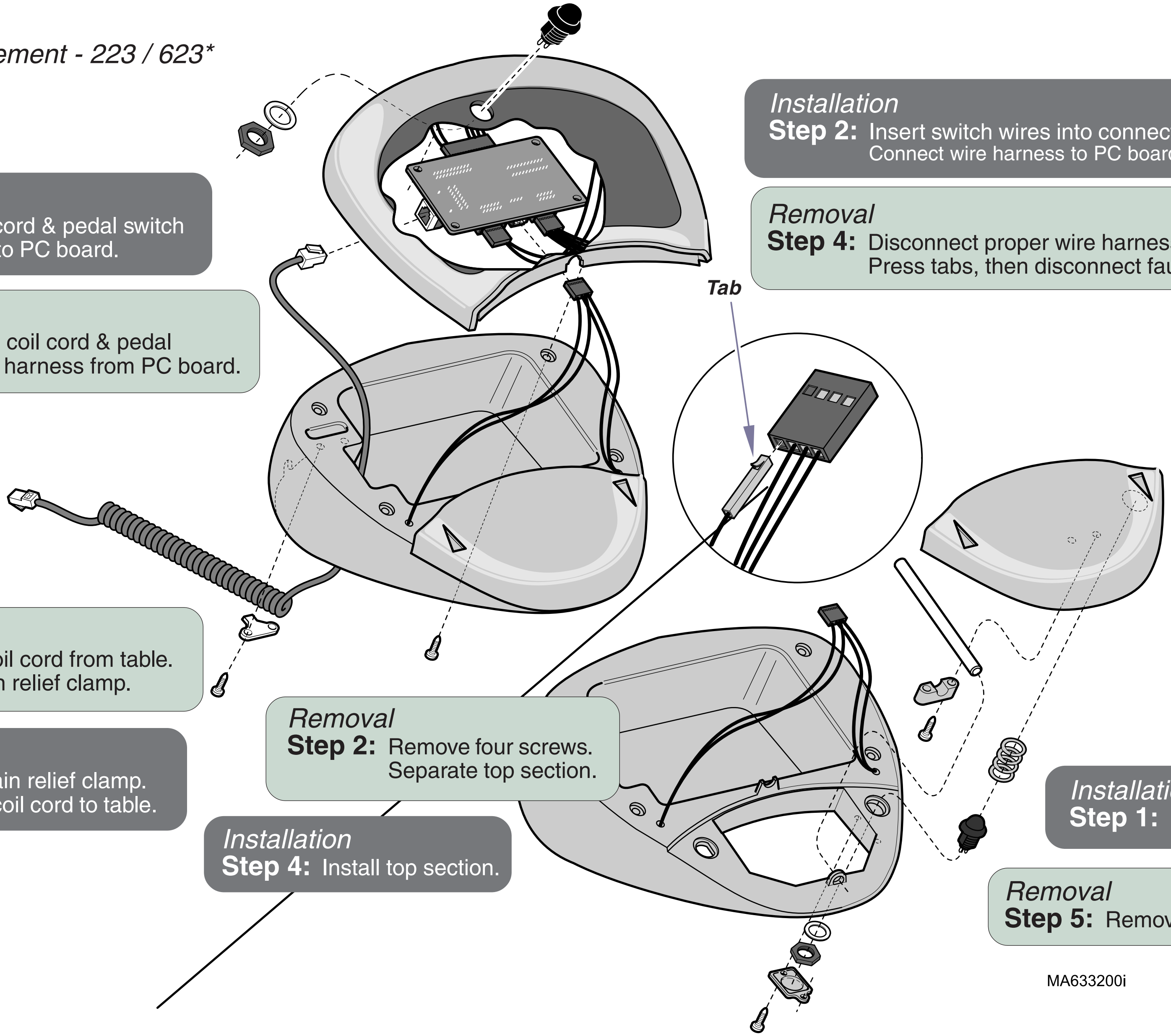
Foot / Hand Control - continued

*Foot Switch Replacement - 223 / 623**

** Old-style Foot Control*



Installation
Step 2: Insert switch wires into connector. Connect wire harness to PC board.

Installation
Step 3: Connect coil cord & pedal switch wire harness to PC board.

Removal
Step 4: Disconnect proper wire harness from PC board. Press tabs, then disconnect faulty switch wires.

Removal
Step 3: Disconnect coil cord & pedal switch wire harness from PC board.

Removal
Step 1: Disconnect coil cord from table. Remove strain relief clamp.

Removal
Step 2: Remove four screws. Separate top section.

Installation
Step 5: Install strain relief clamp. Connect coil cord to table.

Installation
Step 4: Install top section.

Installation
Step 1: Install switch.

Removal
Step 5: Remove faulty switch.

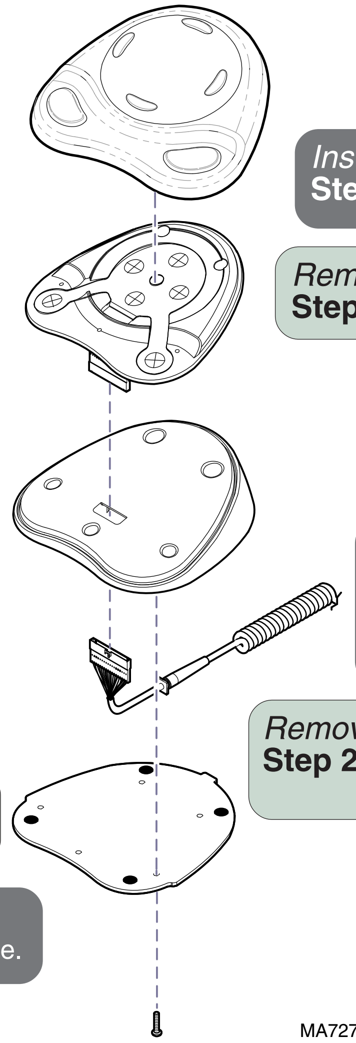
Models:	***223** (-001 thru -014)*		***623** (-001 thru -006)*	
Serial Numbers:	*SC1000 thru present*	*SD1000 thru present*	*SL1000 thru present*	*SM1000 thru present*
	SE1000 thru present	*SF1000 thru present*	*V2200 thru V3302*	
	V2200 thru V3302			

Go To Table Of Contents

Foot / Hand Control - continued

*Switch Membrane Replacement - 223 / 623**

** New-style Foot Control*



Installation
Step 1: Install touch pad onto switch panel.

Removal
Step 3: Peel touch pad off of switch panel.

Installation
Step 2: Insert control cord thru hole in base.
Connect to membrane connector.

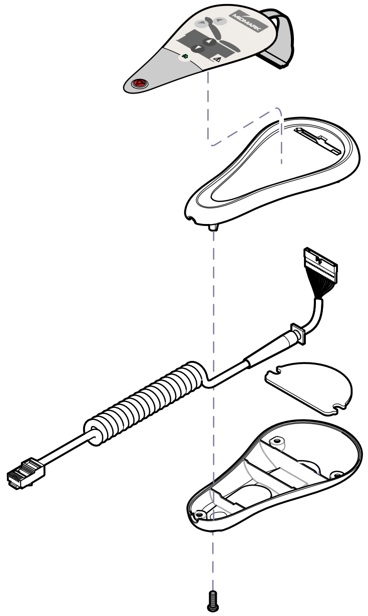
Note: *Slide strain relief block (on cord) into slot on base.*

Removal
Step 2: Disconnect control cord
from membrane connector.

Removal
Step 1: Remove base plate.

Installation
Step 3: Install base plate.

Hand Control - 623 only

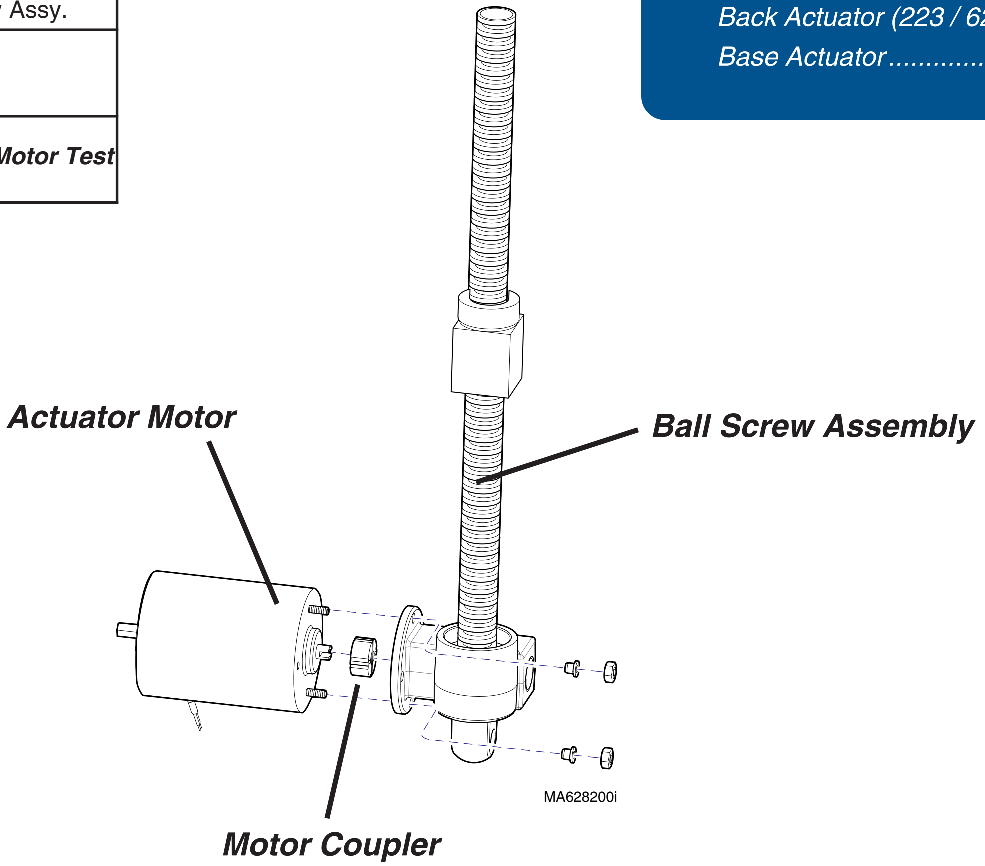


Base / Back Actuator

This illustration shows the three seviceable components of the actuator. Use the table below to isolate the malfunctioning part.

Problem	***Required Action***
Motor runs, but makes grinding noise.	Clean Ball Screw threads. ***-or*** Replace Ball Screw Assy.
Motor runs, but table does not move.	Inspect / replace Motor Coupler.
Motor does not run.	Perform ***Actuator Motor Test***

Base / Back Actuator Go To Page:
Actuator Motor Test B-12
Replacement:
Base Actuator B-13
Back Actuator (223 / 623) B-15
Wiring Diagrams D-1
Exploded View / Part Numbers:
Back Actuator (223 / 623) E-12
Base Actuator E-21



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Base / Back Actuator - *continued*

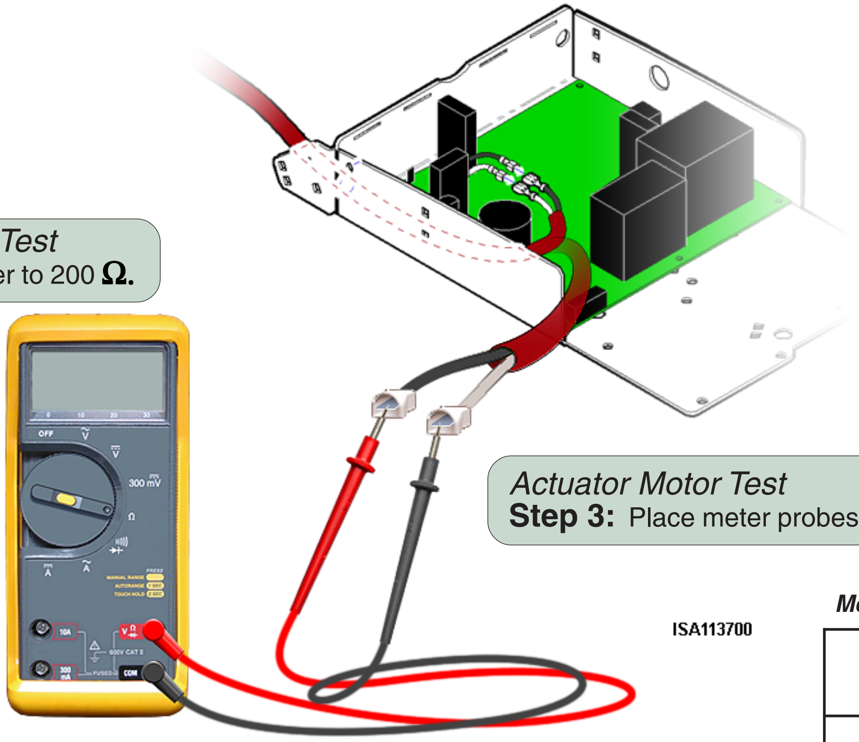
Actuator Motor Test

⚠ ***Caution***
Unplug power cord before removing PC Board cover.

Actuator Motor Test
Step 1: Disconnect actuator wires from PC Board.
[Base Actuator: J2 & J3]
[Back Actuator: J4 & J5 *(223 / 623 only)*]

Note: *Refer to next page to access PC Board.*

Actuator Motor Test
Step 2: Set meter to 200 **Ω.**



Actuator Motor Test
Step 3: Place meter probes on actuator wires.

Meter Readng	*Status*	*Required Action*
2- 3 **Ω**	👍	Motor is good. Perform next check.
0 **Ω**	👎	Replace motor.

Models: ***All***
Serial Numbers: *All*

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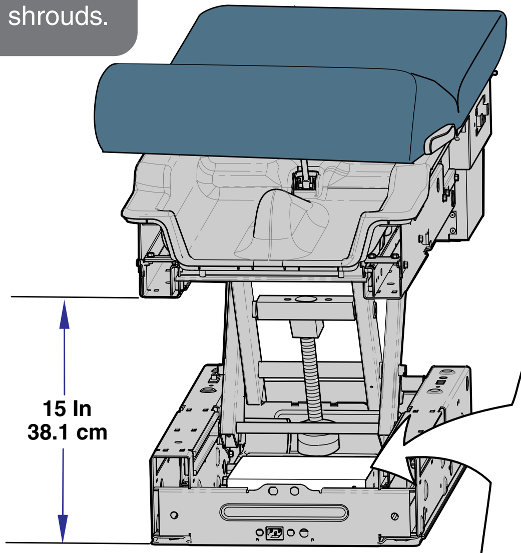
Base Actuator

Replacement

Access Procedures **Go To Page:**
Table Shrouds
Removal / Installation C-2
Manually Raising / Lowering Table C-5

Removal *(see Access Procedures)*
Step 1: Remove table shrouds.

Installation *(see Access Procedures)*
Step 7: Replace table shrouds.



Removal
Step 2: Position table so that bottom of upperwrap is approx. 15 in. from floor.

Note: If necessary, manually raise / lower table. *(see Access Procedures)*

Caution
Unplug power cord before removing PC Board cover.

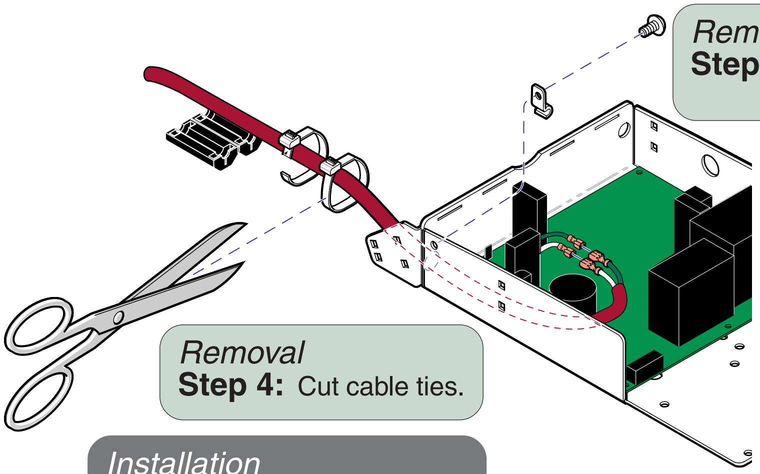
Removal
Step 3: Remove PC Board cover.

Installation
Step 6: Replace PC Board cover.

Installation
Step 4: Connect base actuator motor wires.

Note: Clamp must be installed over stripped portion of actuator wire.

Removal
Step 5: Disconnect base actuator motor wires.



Removal
Step 4: Cut cable ties.

Installation
Step 5: Replace cable ties.

MA628000i

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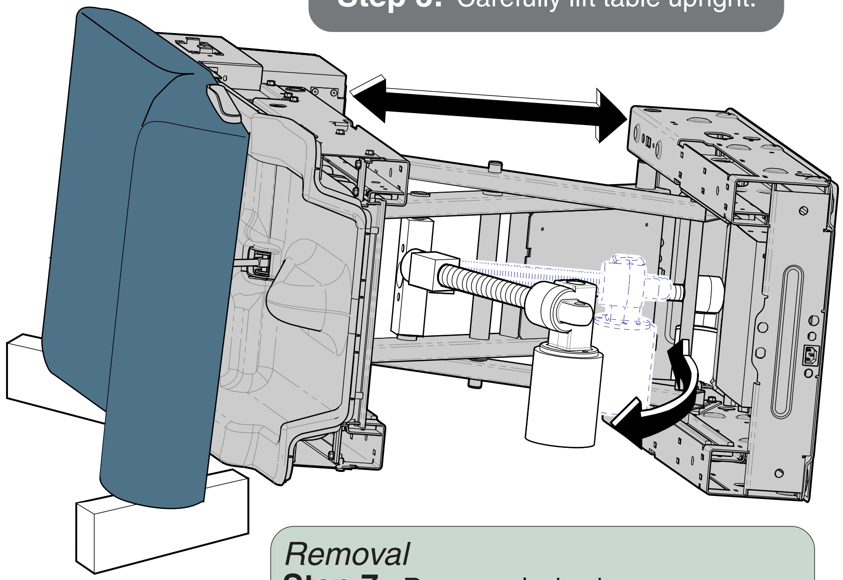
Base Actuator - *continued*

Replacement - *continued*

Caution
Use an assistant when laying / lifting table.
Remove all accessories (chair arms, storage pod, etc.)

Removal
Step 6: Lay table down on LH side.

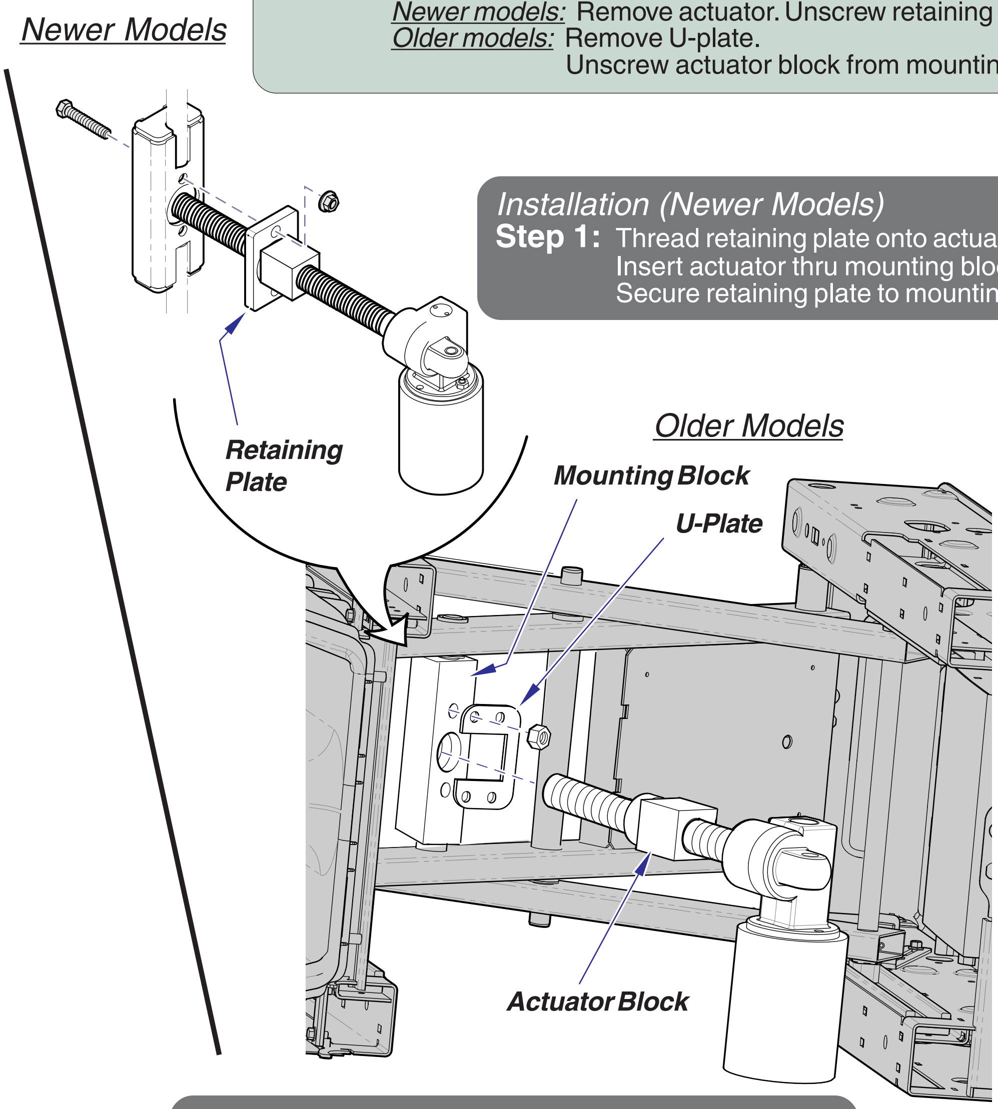
Installation
Step 3: Carefully lift table upright.



Removal
Step 7: Remove clevis pin.
Pull base out to its full extension.
Pivot actuator toward head end.

Installation
Step 2: Pivot actuator toward foot end.
Push base together.
Install clevis pin & clip ring.

Removal
Step 8: Remove two nuts / hex bolts.
Newer models: Remove actuator. Unscrew retaining plate.
Older models: Remove U-plate.
Unscrew actuator block from mounting block.



Installation (Newer Models)
Step 1: Thread retaining plate onto actuator block.
Insert actuator thru mounting block.
Secure retaining plate to mounting block.

Installation (Older Models)
Step 1: Thread actuator block 1/2 way down shaft.
Thread actuator block into mounting block.
Install U-plate.

MA628100i

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Back Actuator

Replacement

Access Procedures **Go To Page:**
Table Shrouds
Removal / Installation C-2

Removal *(see Access Procedures)*
Step 1: Remove outer shrouds.

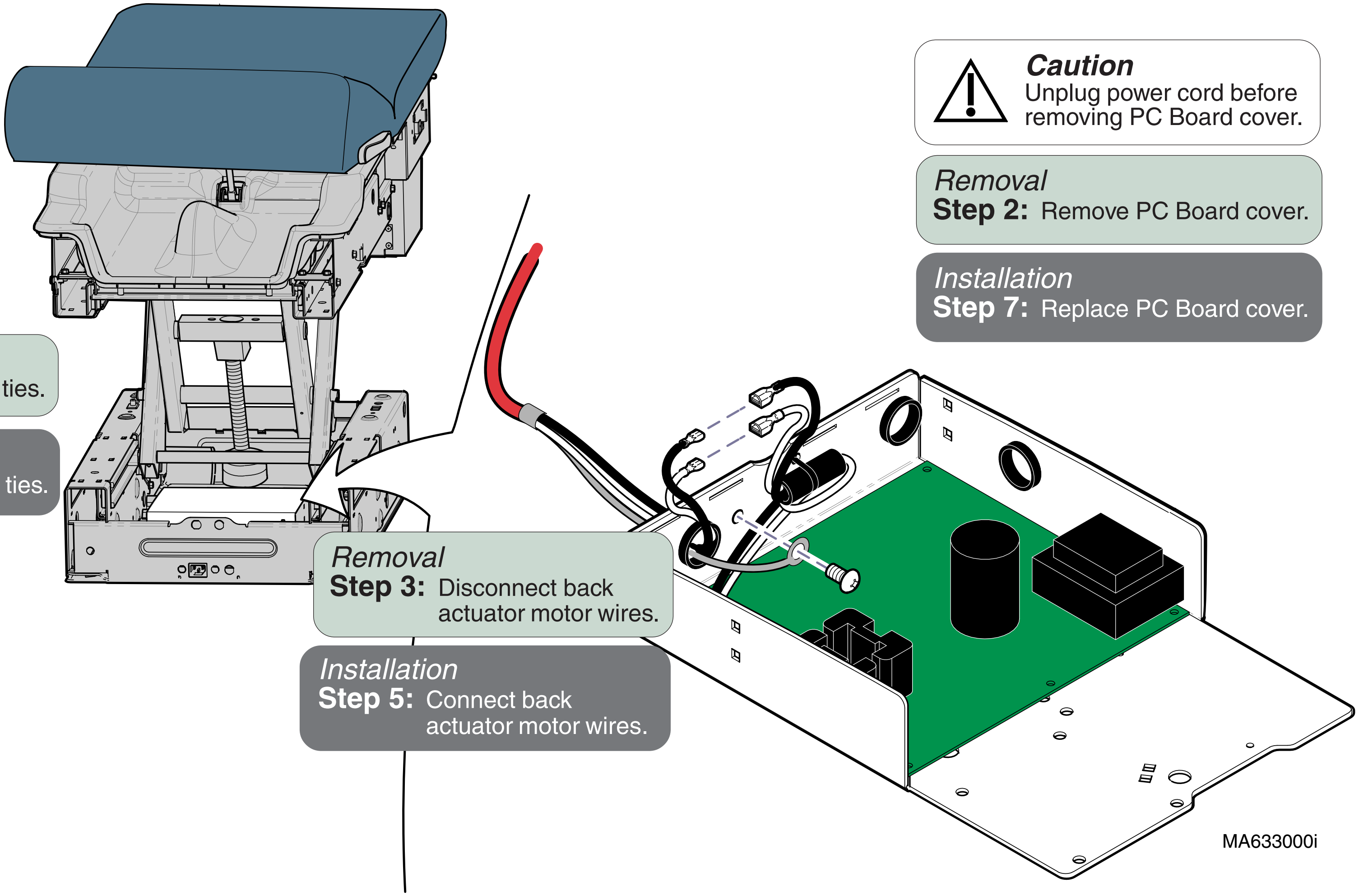
Note: *The inner and middle shrouds will drop down. It is not necessary to remove them.*

Installation
Step 8: Replace shrouds.

Caution
Unplug power cord before removing PC Board cover.

Removal
Step 2: Remove PC Board cover.

Installation
Step 7: Replace PC Board cover.



Removal
Step 4: Cut all cable ties.

Installation
Step 6: Replace all cable ties.

Removal
Step 3: Disconnect back actuator motor wires.

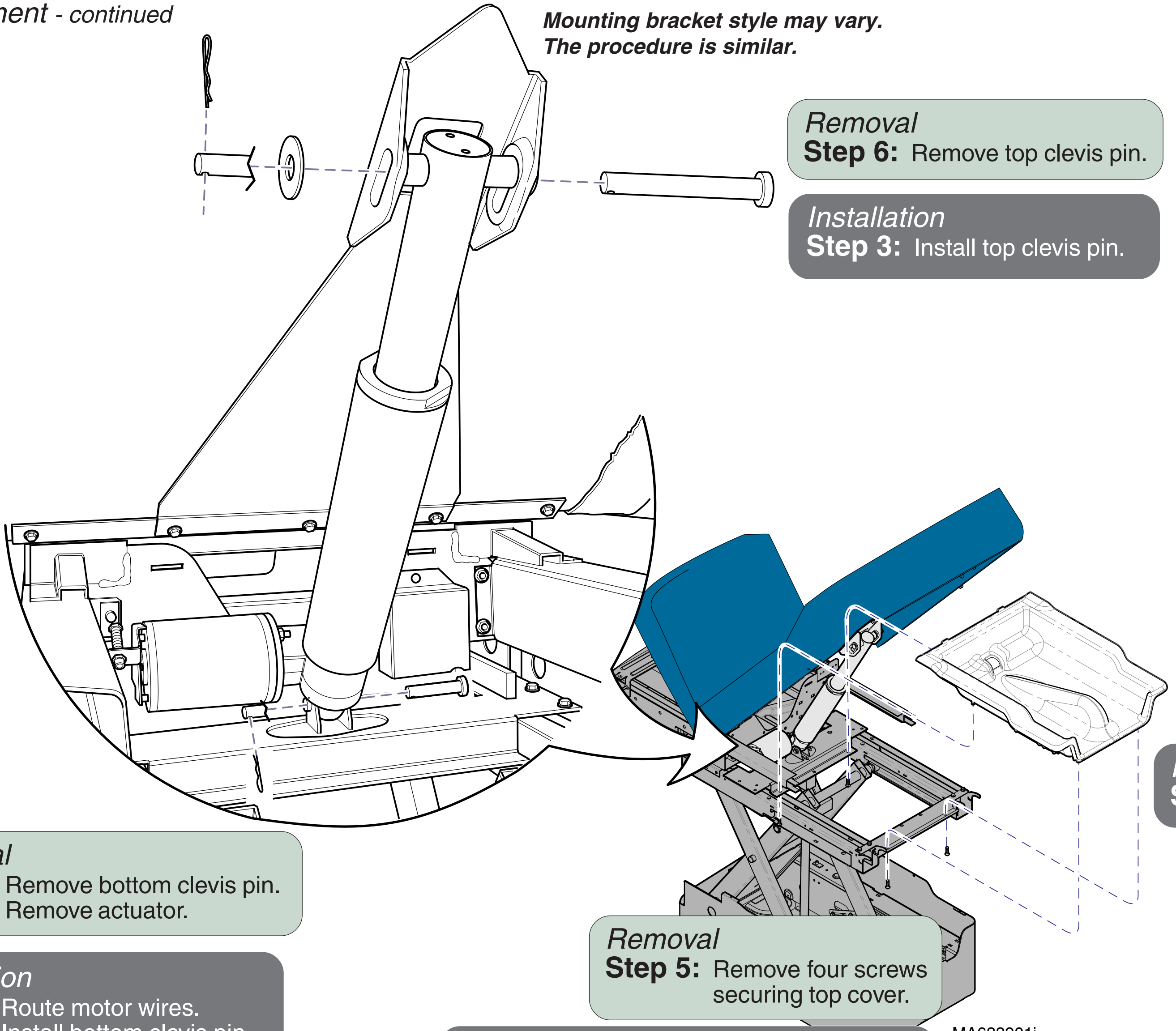
Installation
Step 5: Connect back actuator motor wires.

Models:	***223*** *(all)*	***623*** *(all)*
Serial Numbers:	*All*	*All*

Back Actuator - continued

Replacement - continued

Mounting bracket style may vary. The procedure is similar.



Removal
Step 6: Remove top clevis pin.

Installation
Step 3: Install top clevis pin.

Removal
Step 7: Remove top cover.

Installation
Step 2: Slide top cover over actuator.

Removal
Step 8: Remove bottom clevis pin.
Remove actuator.

Installation
Step 1: Route motor wires.
Install bottom clevis pin.

Removal
Step 5: Remove four screws securing top cover.

Installation
Step 4: Secure top cover with four screws.

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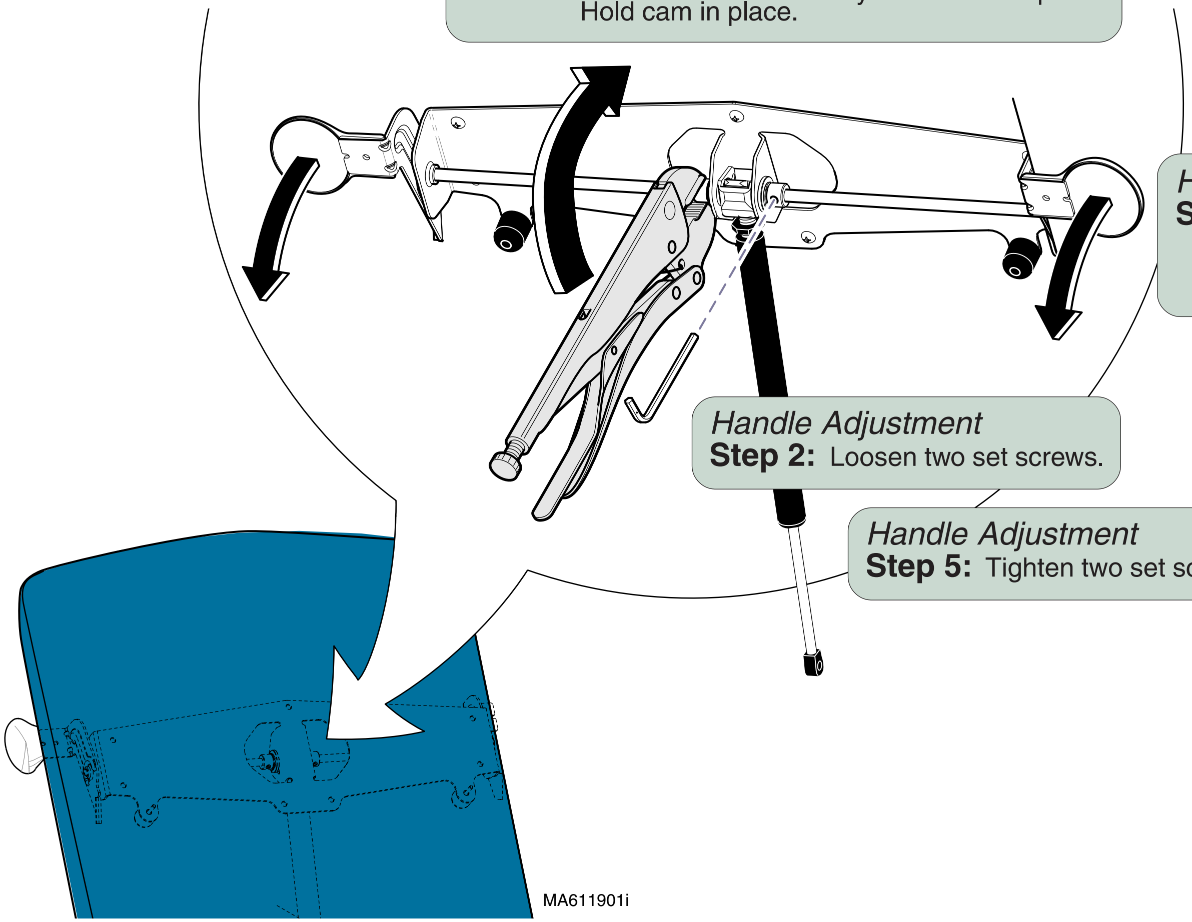
Back Release Mechanism

Back Release Handle Adjustment

Back Release Mechanism **Go To Page:**
Back Release Handle Adjustment B-17
Gas Cylinder
Replacement & Adjustment B-18
Actuator Cap Replacement B-19
Exploded View / Part Numbers E-10*
** multiple pages due to model / serial # break*



Handle Adjustment
Step 1: Raise back section.

Note: *If back section will not move, lift seat section then remove clevis pin from bottom of gas cylinder.*

Handle Adjustment
Step 2: Loosen two set screws.

Handle Adjustment
Step 3: Rotate cam until cylinder releases. Rotate cam back until cylinder locks in place. Hold cam in place.

Handle Adjustment
Step 4: Pivot handles down until they contact back section.

Note: *Cam should not move.*

Handle Adjustment
Step 5: Tighten two set screws.

Models: Serial Numbers:	***222*** **(all)** *All*	***622*** **(all)** *All*

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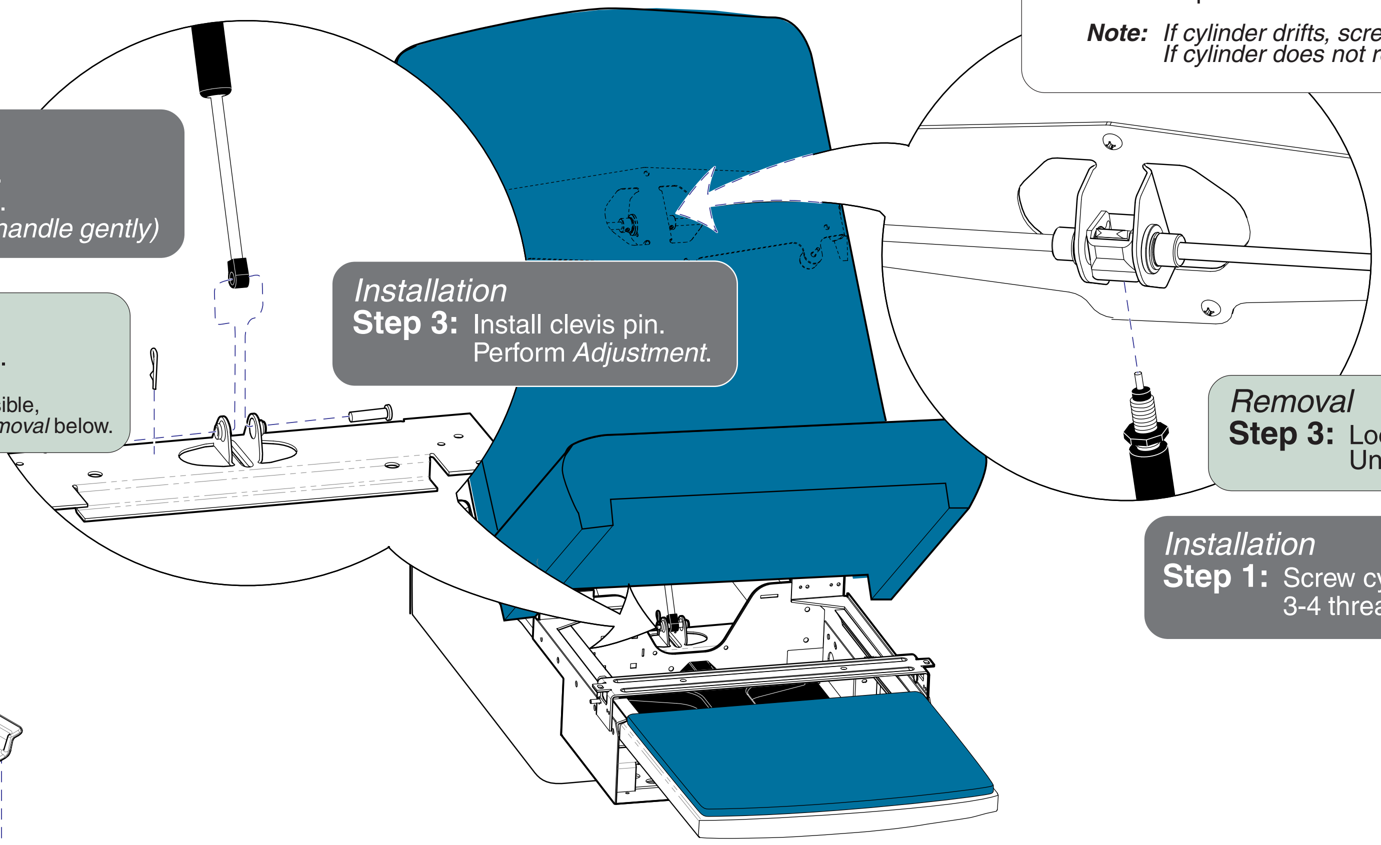
Component Testing & Repair

Back Release Mechanism - *continued*

Gas Cylinder Replacement & Adjustment



Removal
Step 1: Lower back section all the way down.

Removal
Step 2: Remove clevis pin.

Note: If clevis pin is inaccessible, refer to: *Top Cover Removal* below.

Removal
Step 3: Loosen jam nut.
Unscrew cylinder.

Installation
Step 1: Screw cylinder in until 3-4 threads are exposed.

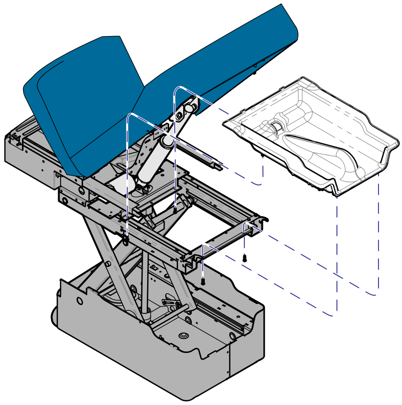
Installation
Step 2: Hold cylinder shaft.
Extend shaft 2-3 in.
(Squeeze release handle gently)

Installation
Step 3: Install clevis pin.
Perform *Adjustment*.

Adjustment
Step 1: Screw cylinder in/out one turn.
Check for proper operation.
Repeat as necessary.

Note: *If cylinder drifts, screw OUT.*
If cylinder does not release, screw IN.

Adjustment
Step 2: Tighten jam nut.



Top Cover Removal
Step 1: Lower table shrouds. *(Refer to Section C)*
Remove four screws.
Raise top cover to access clevis pin.

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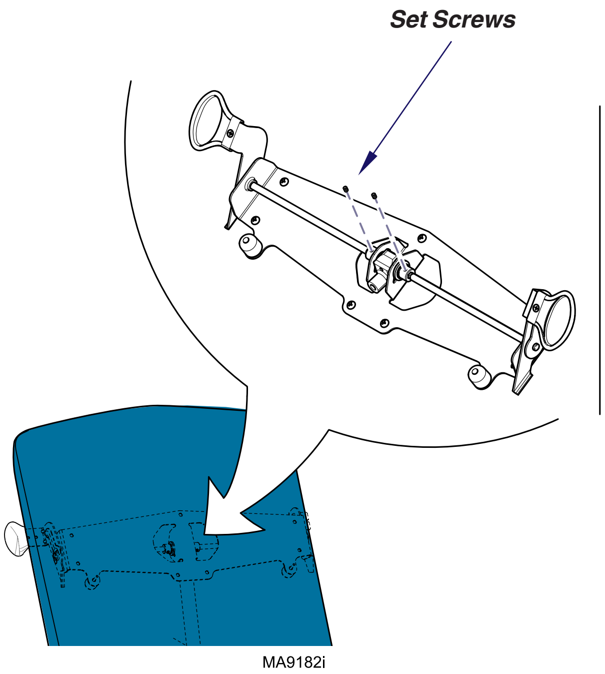
Actuator Cap

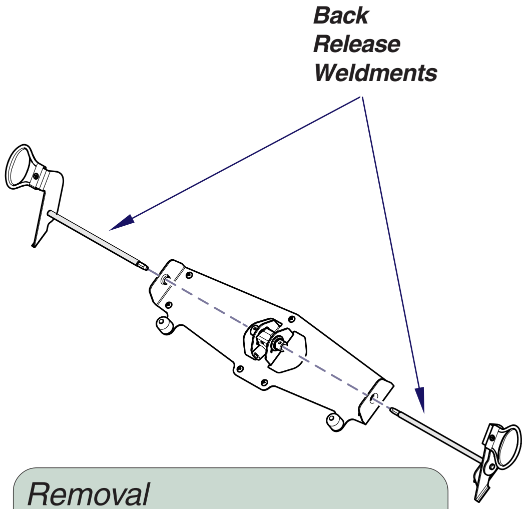
Replacement (Remove)

Removal
Step 1: Remove gas cylinder as shown on previous page.

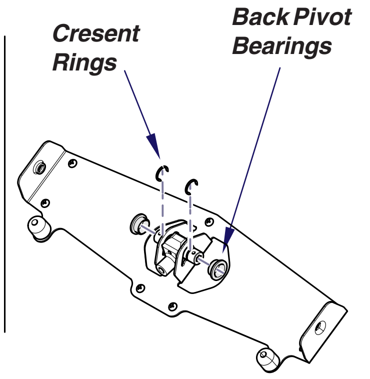
Removal
Step 2: Remove (2) set screws from cam.

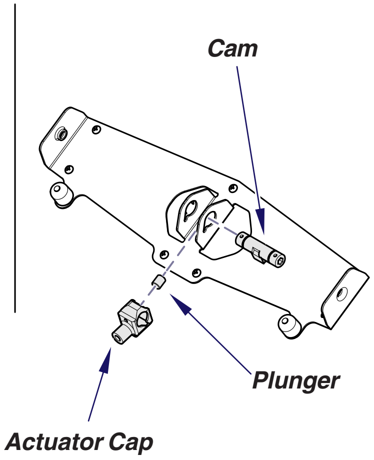

Set Screws
MA9182i

Removal
Step 3: Slide LH and RH back release weldments out of cam.


Back
Release
Weldments

Removal
Step 4: Remove crescent ring from both sides of cam.
Remove back pivot bearings from cam.


Cresent
Rings
Back Pivot
Bearings

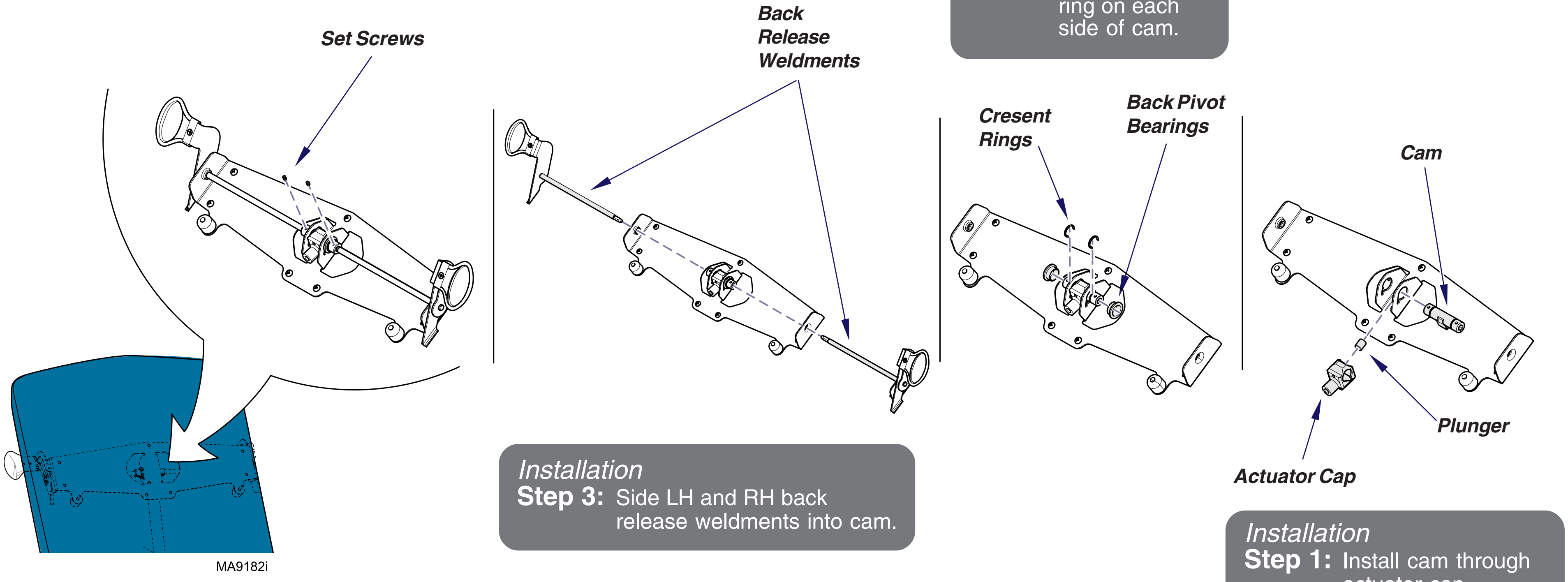

Cam
Plunger
Actuator Cap

Removal
Step 5: Pull cam out of actuator cap.
Remove plunger from actuator cap and reinstall in new actuator cap.

Go To Table Of Contents

Actuator Cap

Replacement (Install)


Set Screws
Back Release Weldments
Cresent Rings
Back Pivot Bearings
Cam
Plunger
Actuator Cap
MA9182i

Installation
Step 1: Install cam through actuator cap.

Installation
Step 2: Install back pivot bearings on cam.
Install crescent ring on each side of cam.

Installation
Step 3: Side LH and RH back release weldments into cam.

Installation
Step 4: Install (2) set screw in cam.
Install gas cylinder.

Models: Serial Numbers:	**222** (all) All	**622** (all) All

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Main PC Board

This illustration shows the location of the fuses on the Main PC Board. Use the table below to determine the required action.

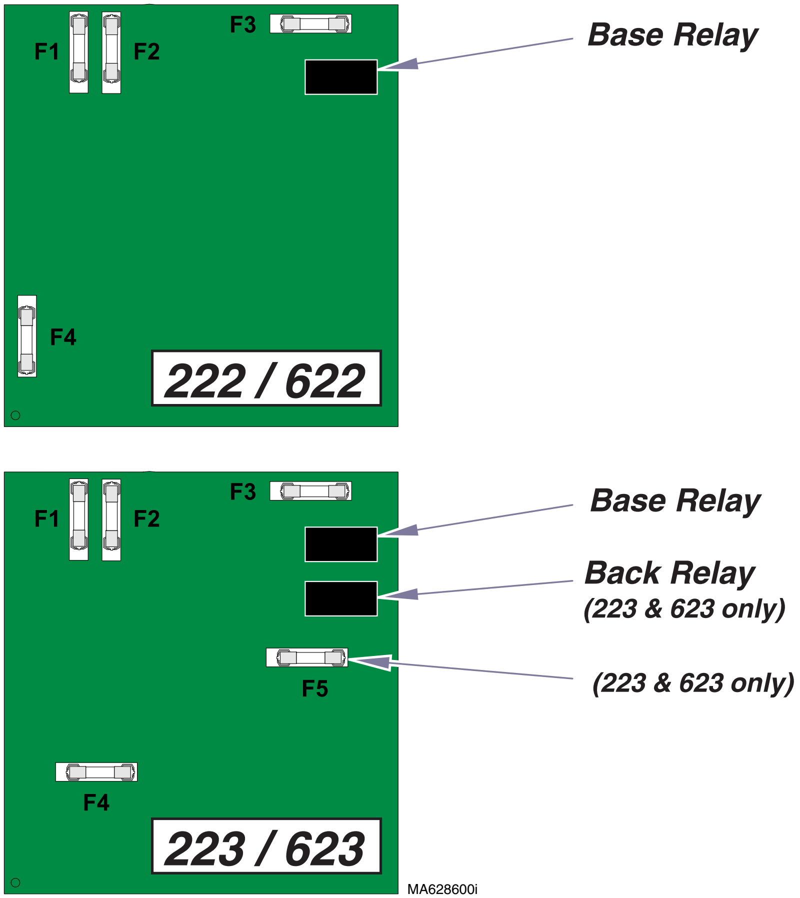
Problem	***Required Action***
Base actuator motor does not run.	Check fuses *(F1& F2, F3, F4)*. Perform ***Base Relay Test***
Back actuator motor does not run.	Check fuses *(F1& F2, F3, F5)*. Perform ***Back Relay Test***

Go To Page:

Main PC Board
Base Relay Test B-22
Back Relay Test B-23
Replacement B-24
Wiring Diagrams D-1
Part Numbers
  222 / 622 .... E-23
  223 / 623 .... E-24
** multiple pages due to model / serial # break*

- **222 / 622** .... single function / one relay *(Base Relay)*
  Fuses:
  F1 & F2 .... Primary Fuses *(affect all functions)*
  F3 .... Base Motor Fuse *(affects Base Up / Down)*
  F4 .... Transformer Fuse *(affects all functions)*

- **223 / 623** .... dual function / two relays *(Base Relay & Back Relay)*
  Fuses:
  F1 & F2 .... Primary Fuses *(affect all functions)*
  F3 .... Base Motor Fuse *(affects Base Up / Down)*
  F4 .... Transformer Fuse *(affects all functions)*
  F5 .... Back Motor Fuse *(affects Back Up / Down)*



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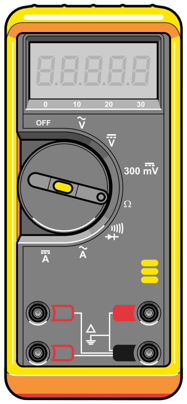
Component Testing & Repair

Main PC Board - continued

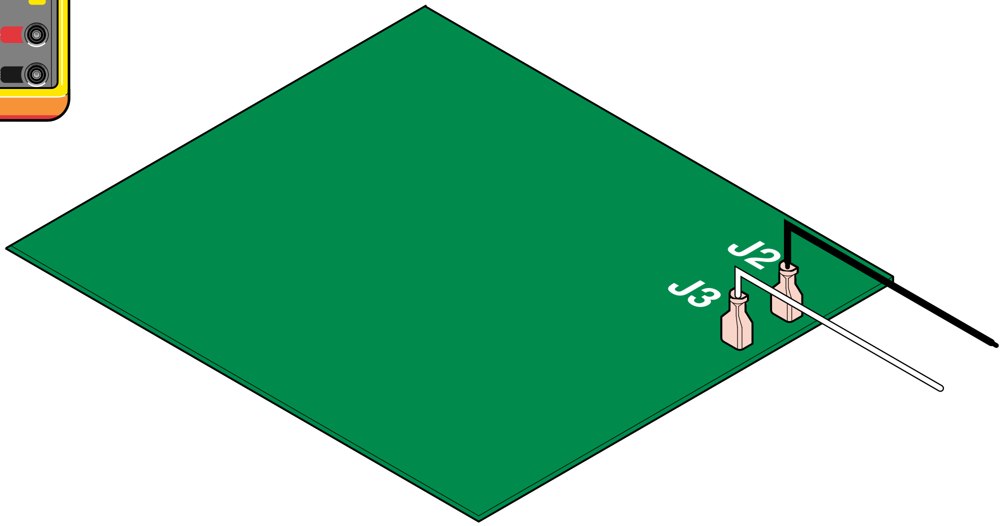
Base Relay Test

Base Relay Test
Step 1: Set meter to VDC.



Note: *Wires must remain connected to PC Board to perform this test.*

Base Relay Test
Step 2: Clip meter test hooks on terminals at J2 and J3.



MA718400i

Base Relay Test
Step 3: Activate Base Up / Down function using the foot or hand control.

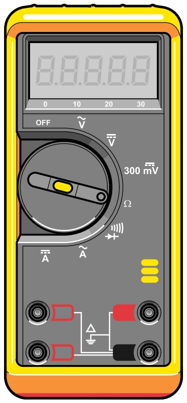
Meter Readng	***Status***	***Required Action***
approx. 48 VDC	👍	PC Board is good. Perform next check.
0 VDC	👎	Replace PC Board.

Go To Table Of Contents

Main PC Board - *continued*

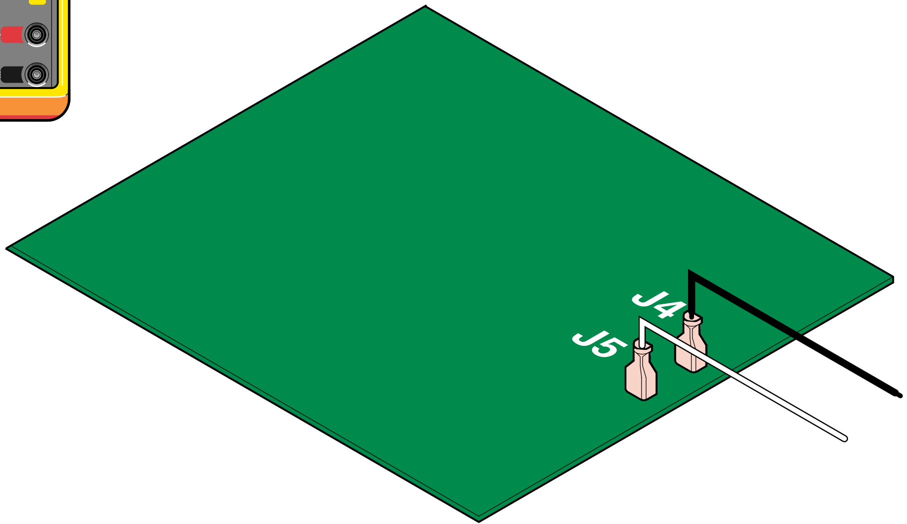
Back Relay Test

Back Relay Test
Step 1: Set meter to VDC.



Note: *Wires must remain connected to PC Board to perform this test.*

Back Relay Test
Step 2: Clip meter test hooks on terminals at J4 and J5.



Back Relay Test
Step 3: Activate Back Up / Down function using the foot or hand control.

Meter Readng	*Status*	*Required Action*
approx. ***48 VDC***	👍	PC Board is good. Perform next check.
0 VDC	👎	Replace PC Board.

Go To Table Of Contents

Main PC Board - continued

Replacement

Caution
Unplug power cord before removing PC Board cover.

Access Procedures **Go To Page:**
Table Shrouds
Removal / Installation C-2
Manually Raising / Lowering Table C-5

Removal *(see Access Procedures)*
Step 1: Remove outer shrouds.

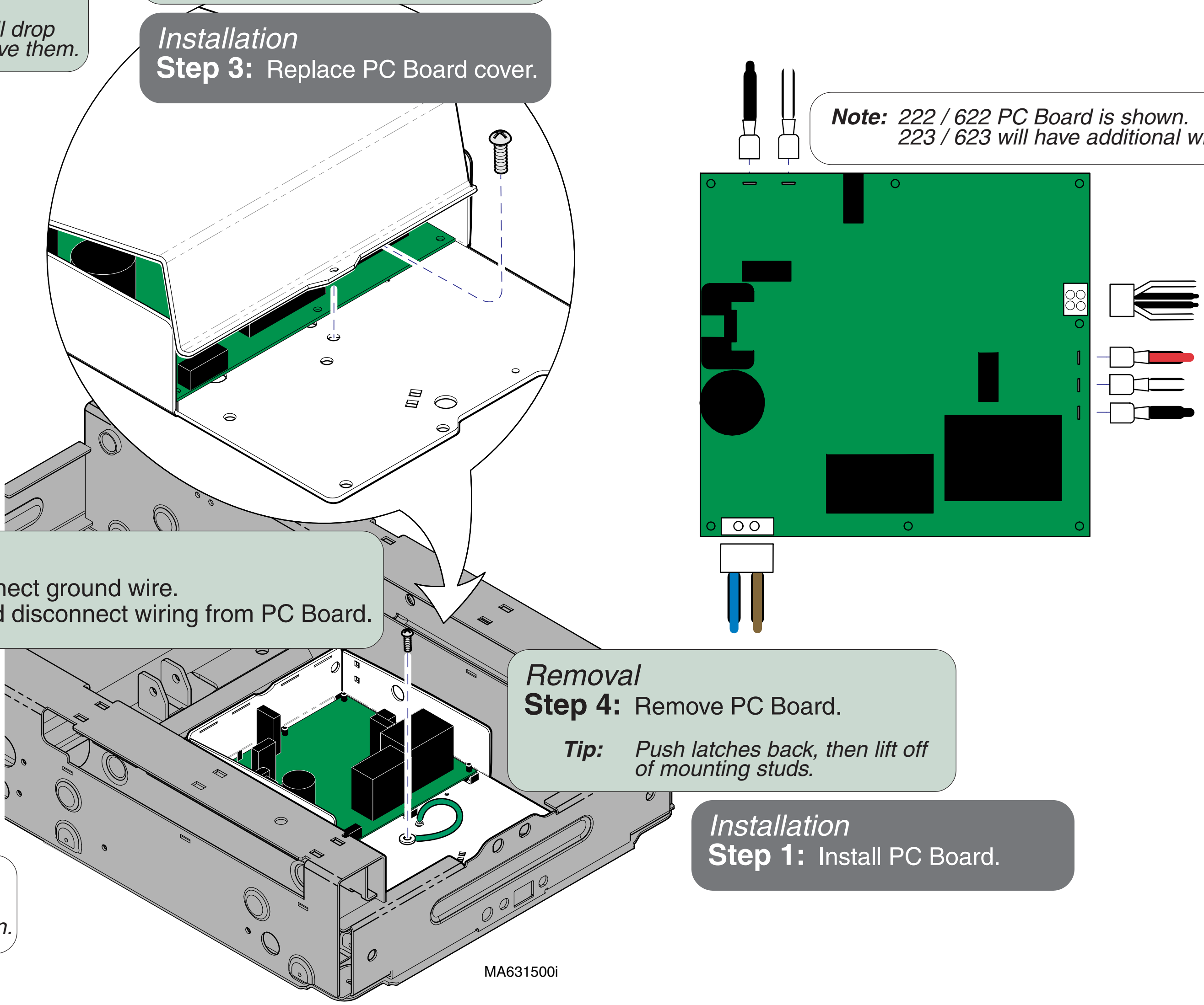
Note: *The inner and middle shrouds will drop down. It is not necessary to remove them.*

Removal
Step 2: Remove PC Board cover.

Installation
Step 3: Replace PC Board cover.

Installation *(see Access Procedures)*
Step 4: Replace outer shrouds.

Note: *222 / 622 PC Board is shown. 223 / 623 will have additional wiring.*



Removal
Step 3: Disconnect ground wire.
Tag and disconnect wiring from PC Board.

Installation
Step 2: Connect ground wire.
Connect all wiring.

Removal
Step 4: Remove PC Board.

Tip: *Push latches back, then lift off of mounting studs.*

Installation
Step 1: Install PC Board.

Note: *Boards manufactured after 6/05 will beep for approximately three seconds when table is first pluged in.*

Models:	**All**
Serial Numbers:	All

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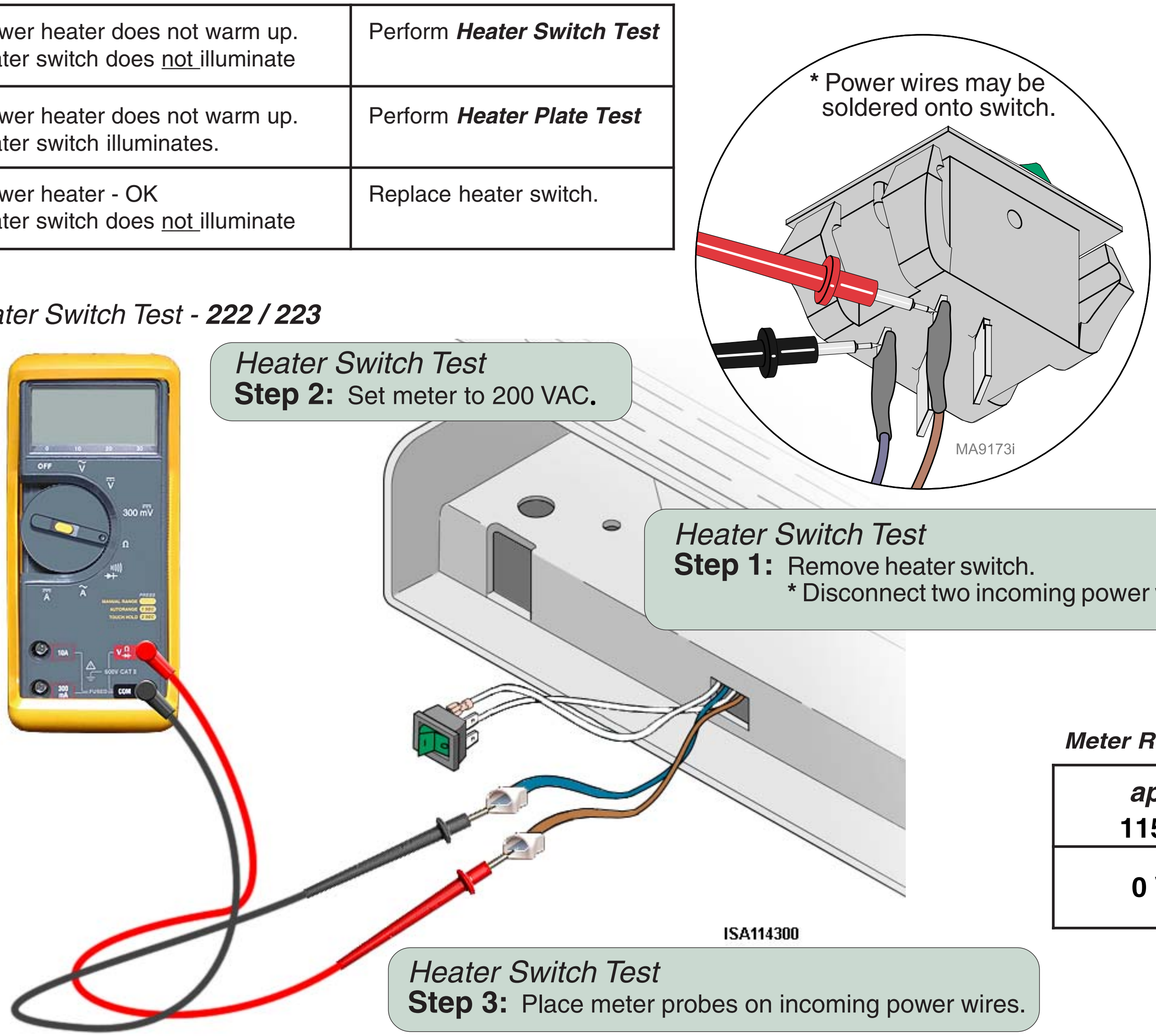
Drawer Heater System

Use the table below to determine the required action.
[This table applies to all models (222 / 223 / 622 / 623)]

Problem	***Required Action***
Drawer heater does not warm up. Heater switch does not illuminate	Perform ***Heater Switch Test***
Drawer heater does not warm up. Heater switch illuminates.	Perform ***Heater Plate Test***
Drawer heater - OK Heater switch does not illuminate	Replace heater switch.

Go To Page:
Drawer Heater System
Distribution Board Fuses B-2
Heater Switch Test:
222 / 223 .... B-25
622 / 623 .... B-26
Switch Replacement 622 / 623 .... B-27
Heater Plate Test:
222 / 223 .... B-28
622 / 623 .... B-29
Heater Plate Replacement B-30
Wiring Diagrams D-1
Part Numbers E-31*
** multiple pages due to model / serial # break*

*Heater Switch Test - **222 / 223***



Heater Switch Test
Step 1: Remove heater switch.
* Disconnect two incoming power wires.

Heater Switch Test
Step 2: Set meter to 200 VAC.

Heater Switch Test
Step 3: Place meter probes on incoming power wires.

Meter Readng	***Status***	***Required Action***
approx. **115 VAC**	👎	Replace switch.
0 VAC	👍	Switch OK. Check connections & fuses

Models: *Serial Numbers:*	***222*** *All*	***223*** *All*

Go To Table Of Contents

Drawer Heater System - *continued*

*Heater Switch Test - **622 / 623***

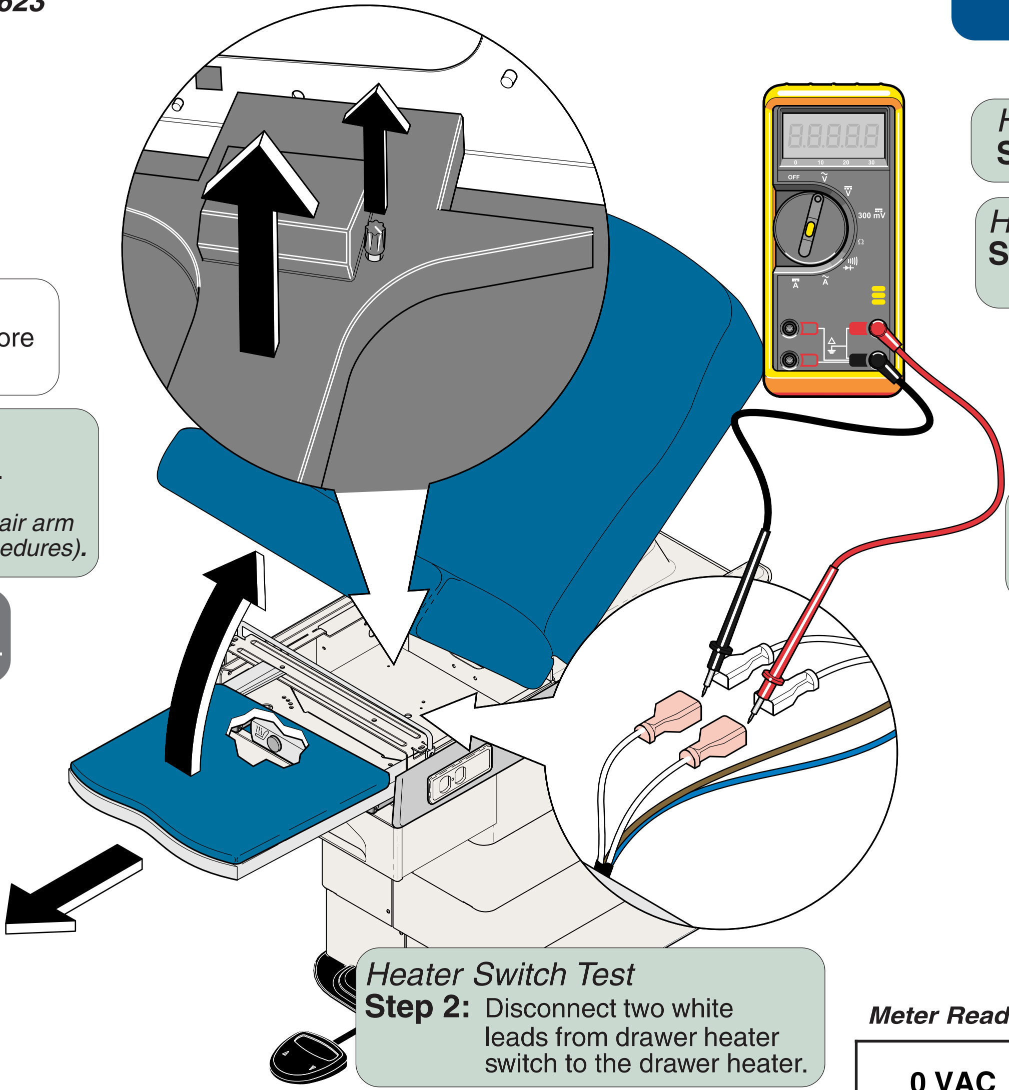
Access Procedures **Go To Page:**
Chair Arm Brace Removal C-8

Caution
⚠ Unplug power cord before removing stirrup guide.

Removal
Step 1: Remove stirrup guide.

Note: *If necessary, remove chair arm brace (see Access Procedures).*

Installation
Step 2: Replace stirrup guide.



Heater Switch Test
Step 2: Disconnect two white leads from drawer heater switch to the drawer heater.

Heater Switch Test
Step 3: Set meter to 200 VAC.

Heater Switch Test
Step 4: Place meter probes on two white leads from switch.

Heater Switch Test
Step 5: Plug in power cord, then depress switch to ON.

Caution
⚠ Unplug power cord before re-connecting electrical leads.

Installation
Step 1: Re-connect electrical leads.

Meter Readng	*Status*	*Required Action*
0 VAC	👎	Replace switch.
approx. **115 VAC**	👍	Switch OK. Check Heater Plate.

Go To Table Of Contents

Drawer Heater System - continued

*Heater Switch Replacement - **622 / 623***

(This procedure also applies to the upholstery heater switch)

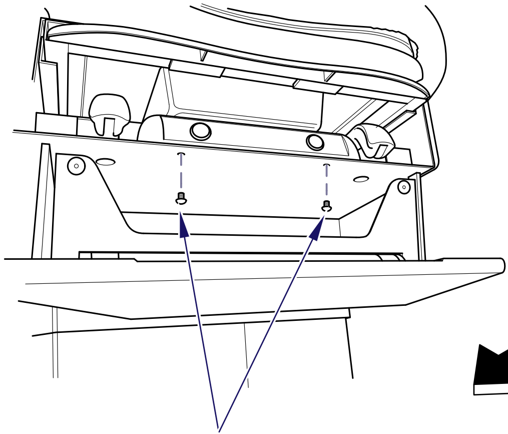
Access Procedures Go To Page:
Chair Arm Brace Removal C-8

Caution
Unplug power cord before removing stirrup guide.

Removal
Step 1: Remove stirrup guide.

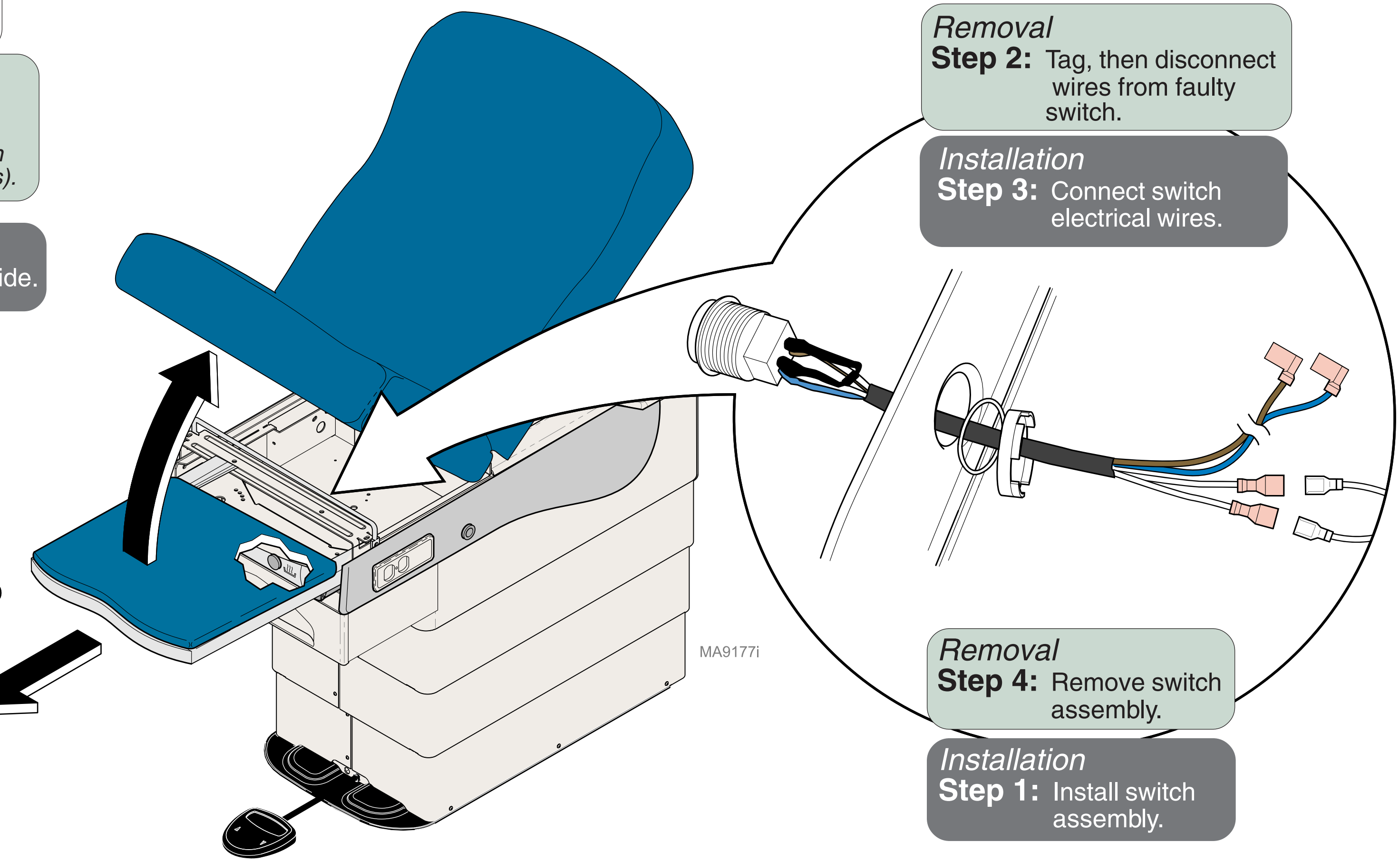
Note: *If necessary, remove chair arm brace (see Access Procedures).*

Installation
Step 4: Replace stirrup guide.



Removal
Step 3: Remove switch housing.

Installation
Step 2: Install switch housing.



Removal
Step 2: Tag, then disconnect wires from faulty switch.

Installation
Step 3: Connect switch electrical wires.

Removal
Step 4: Remove switch assembly.

Installation
Step 1: Install switch assembly.

Models:	**622**	**623**
Serial Numbers:	*All*	*All*

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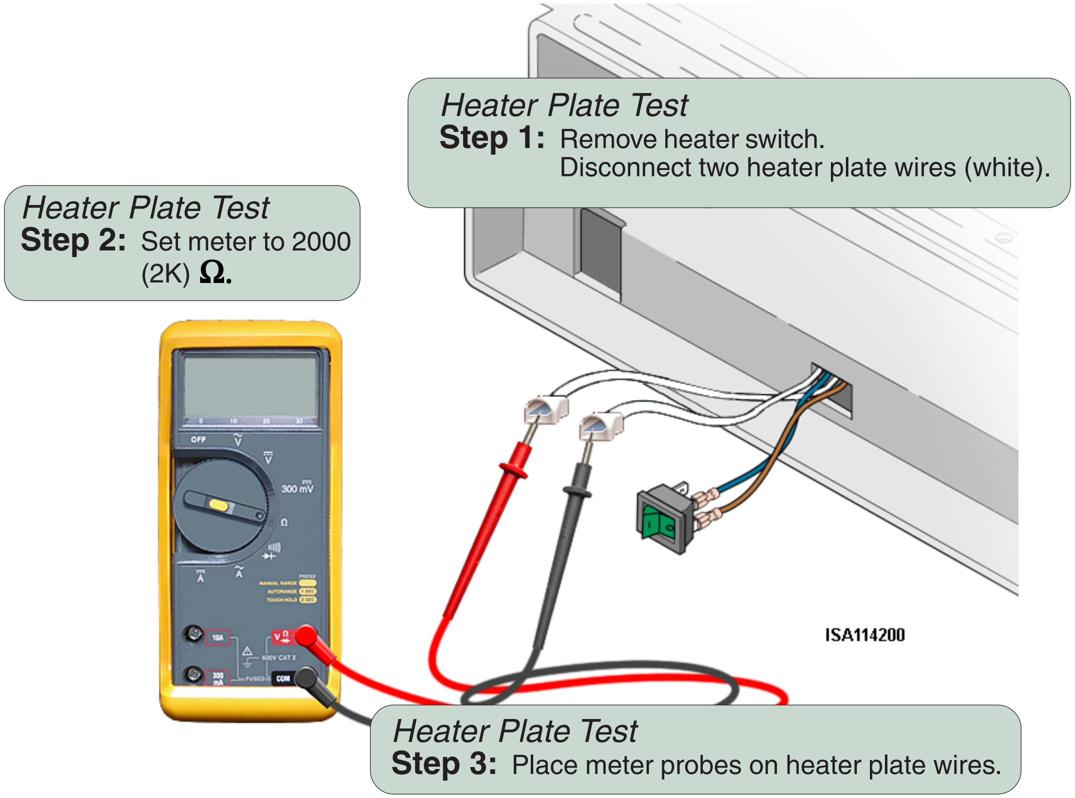
Component Testing & Repair

Drawer Heater System - *continued*

*Heater Plate Test -**222 / 223***



Heater Plate Test
Step 1: Remove heater switch.
Disconnect two heater plate wires (white).

Heater Plate Test
Step 2: Set meter to 2000 (2K) **Ω.**

Heater Plate Test
Step 3: Place meter probes on heater plate wires.

Meter Readng	*Status*	*Required Action*
approx. 360 Ω	👍	Heater plate is good.
0 Ω	👎	Replace heater plate.

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Drawer Heater System - continued

*Heater Plate Test **-622 / 623***

Go To Page:

Access Procedures

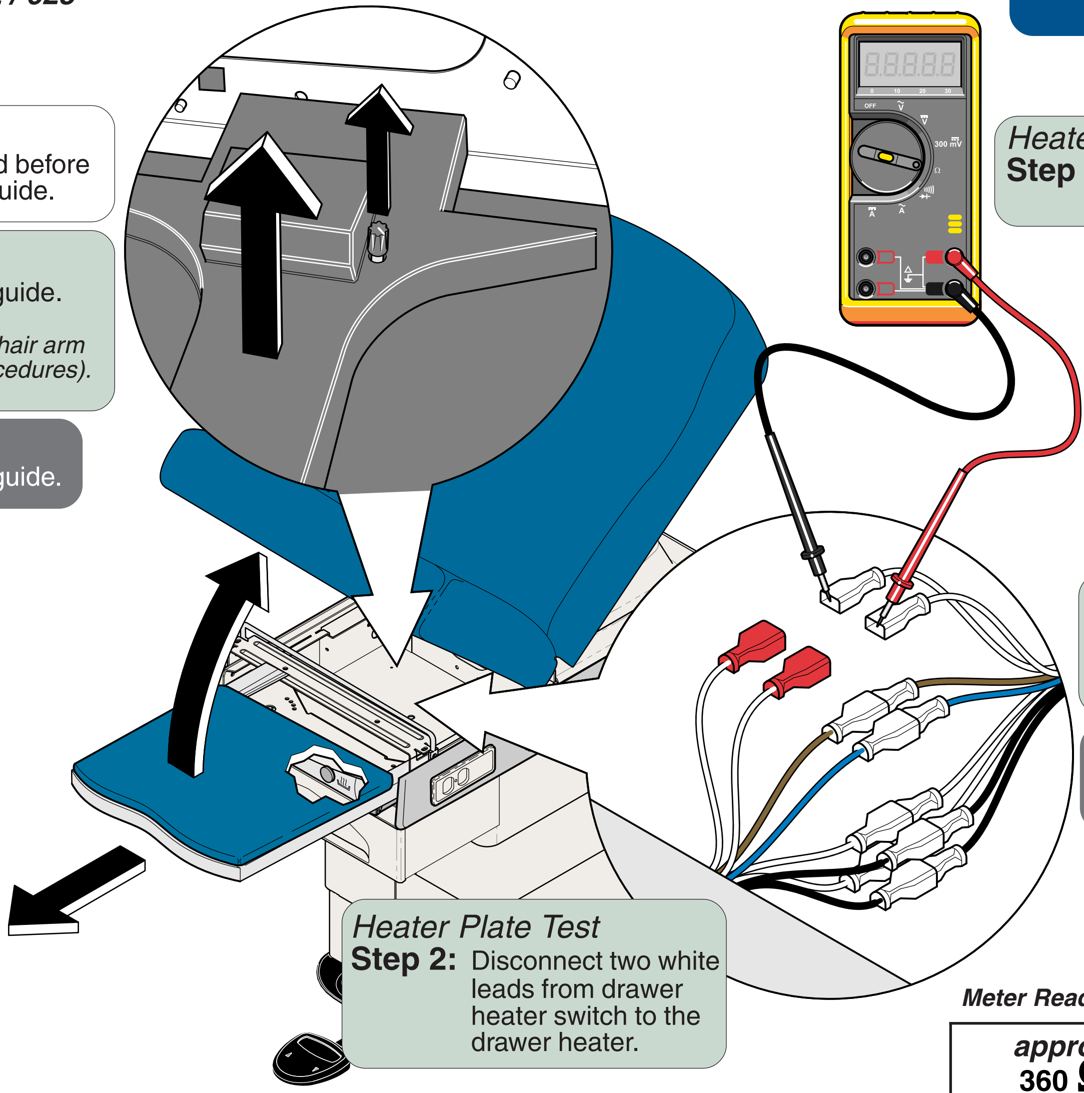
Chair Arm Brace Removal C-8

Caution
Unplug power cord before removing stirrup guide.

Removal
Step 1: Remove stirrup guide.

Note: *If necessary, remove chair arm brace (see Access Procedures).*

Installation
Step 2: Replace stirrup guide.



Heater Plate Test
Step 2: Disconnect two white leads from drawer heater switch to the drawer heater.

Heater Plate Test
Step 3: Set meter to 2000 (2K) **Ω.**

Heater Plate Test
Step 4: Place meter probes on terminals of heater plate wires.

Installation
Step 1: Re-connect electrical leads.

Meter Readng	*Status*	*Required Action*
approx. **360 Ω**	👍	Heater plate is good. Perform next check.
***0* Ω**	👎	Replace heater plate.

Models:	***622***	***623***
Serial Numbers:	*All*	*All*

Rev. 7/10/12

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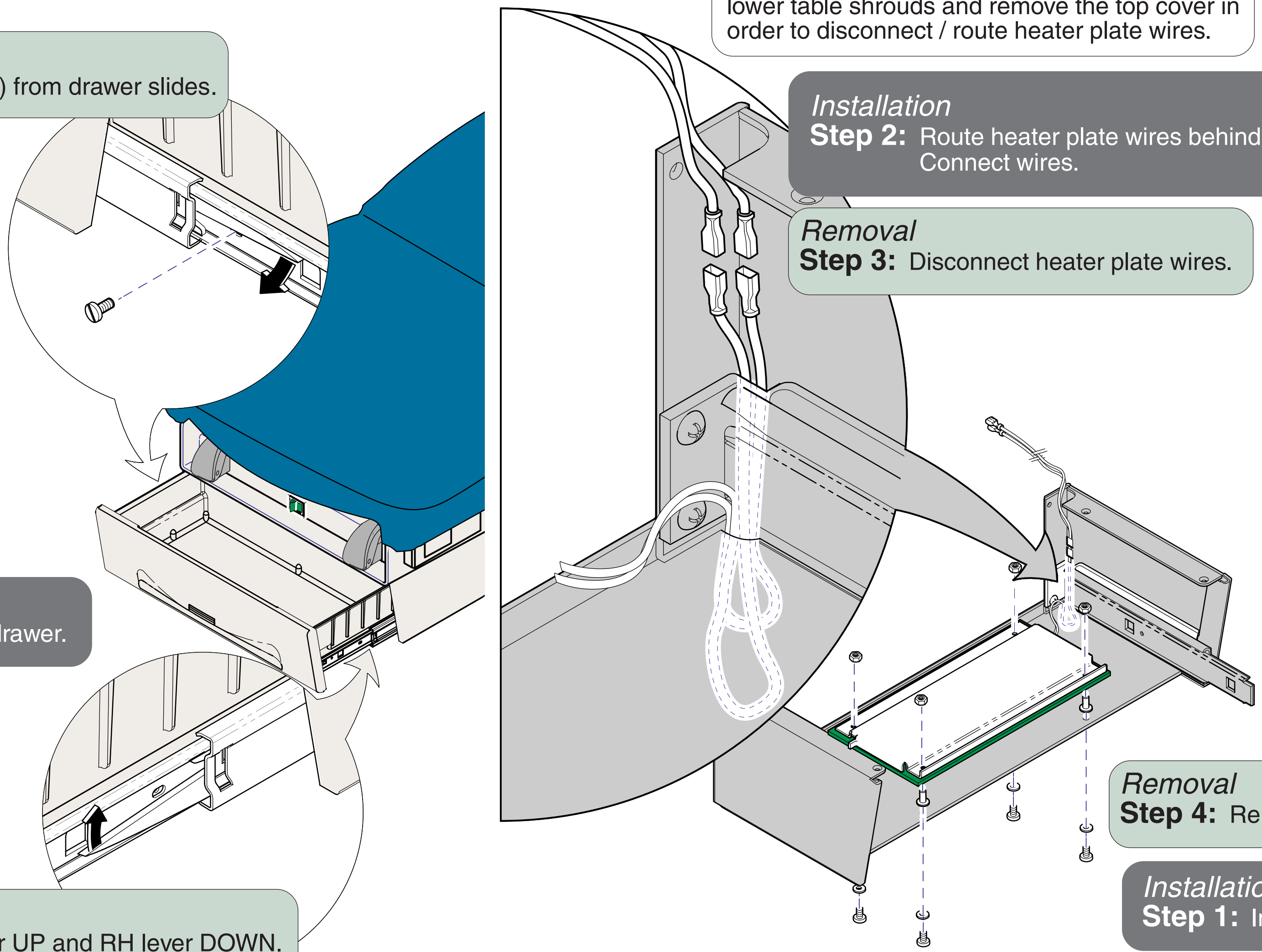
Component Testing & Repair

Drawer Heater System - continued

Heater Plate Replacement



Removal
Step 1: Remove screw(s) from drawer slides.

Installation
Step 3: Install screw.

Installation
Step 3: Install drawer.

Removal
Step 2: Push LH slide lever UP and RH lever DOWN. Remove drawer.

Note: *Slide levers are clear plastic.*

Attention
If there is not a wire connection here, you must lower table shrouds and remove the top cover in order to disconnect / route heater plate wires.

Installation
Step 2: Route heater plate wires behind slide. Connect wires.

Removal
Step 3: Disconnect heater plate wires.

Removal
Step 4: Remove heater plate.

Installation
Step 1: Install heater plate.

MA633800i

Upholstery Heater System

Use the table below to determine the required action.

Problem	***Required Action***
Upholstery heater does not warm up. Heater switch does not illuminate	Perform ***Upholstery PC Board Test***
Upholstery heater does not warm up. Heater switch illuminates.	Perform ***Upholstery Heater Test***
Upholstery heater - OK Heater switch does not illuminate	Replace heater switch.

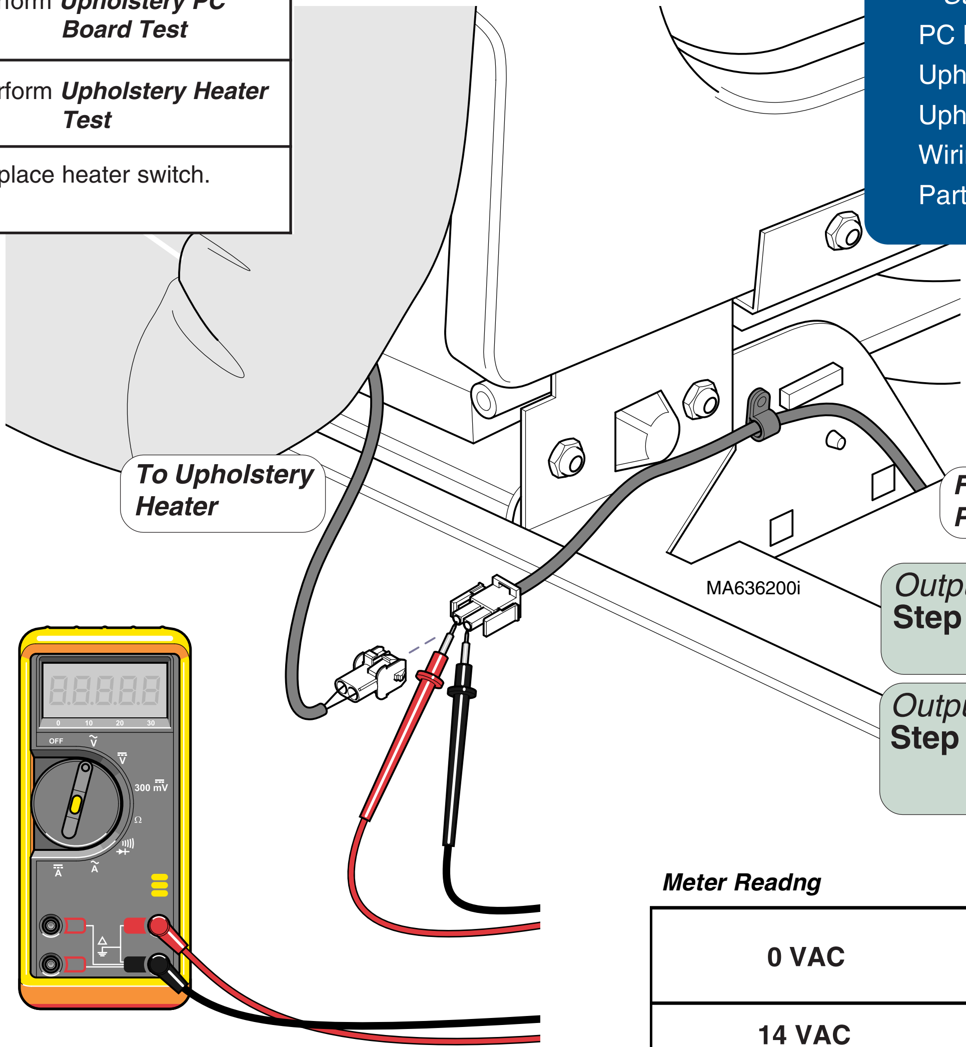
Go To Page:

Upholstery Heater System

Upholstery Heater PC Board Test:
Output Voltage Test B-31
Supply Voltage Test B-32
PC Board Replacement B-33
Upholstery Heater Test B-34
Upholstery Heater Switch Test B-35
Wiring Diagrams D-1
Part Numbers E-33

Upholstery Heater PC Board Test

(Output Voltage Test)



Output Voltage Test
Step 1: Disconnect leads to upholstery heater.

Output Voltage Test
Step 2: Set meter to 20 VAC.

Output Voltage Test
Step 3: Place meter probes on leads from upholstery heater PC Board.

Output Voltage Test
Step 4: Press Upholstery (Green) Heater switch ON.

Meter Readng	***Status***	***Required Action***
0 VAC	✗	Check supply voltage to heater PC board
14 VAC + /- 3 VAC	✓	Check upholstery heater

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Upholstery Heater System - continued

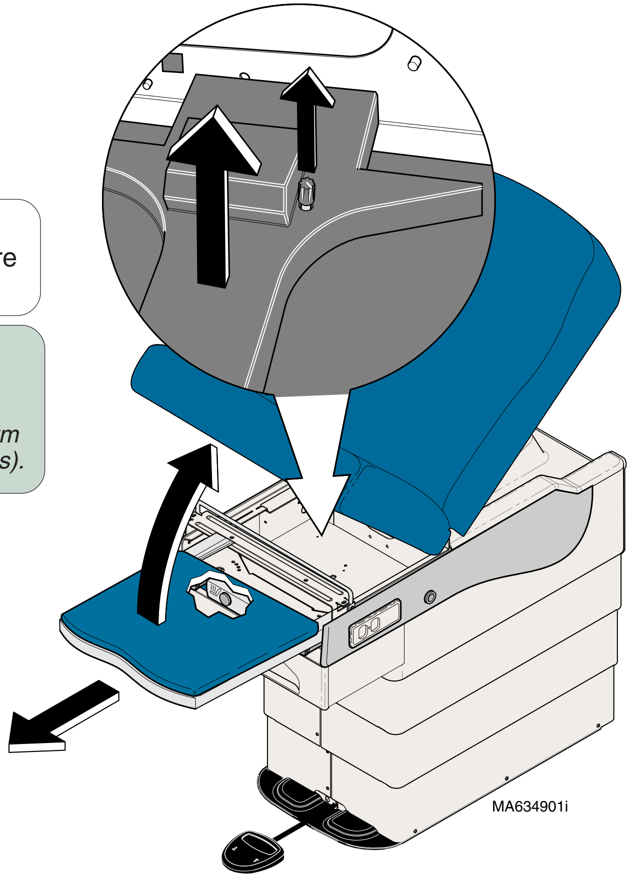
Upholstery Heater PC Board Test - continued

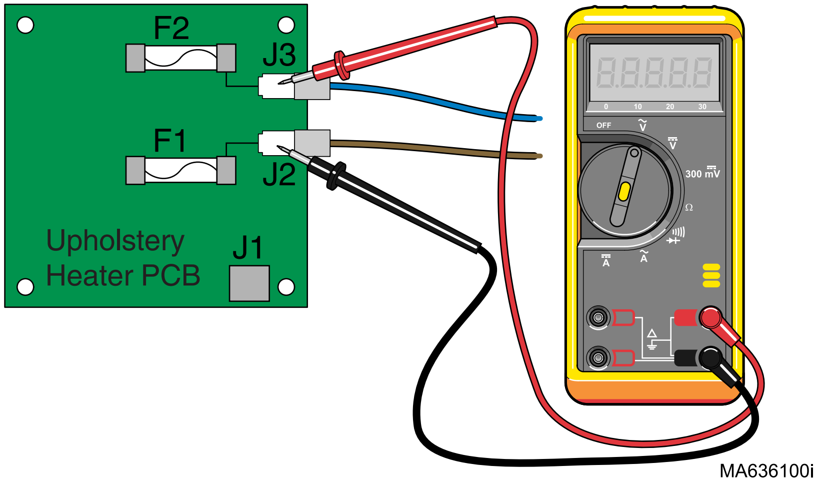
(Supply Voltage Test)

Caution
⚠ Unplug power cord before removing stirrup guide.

Supply Voltage Test
Step 1: Remove stirrup guide.

Note: *If necessary, remove chair arm brace (see Access Procedures).*





Supply Voltage Test
Step 2: Set meter to 200 VAC.

Supply Voltage Test
Step 3: Place meter probes on J2 & J3 of Upholstery Heater PCB and plug table into outlet.

Meter Readng	*Status*	*Required Action*
***0* VAC**	👎	Check incoming power source to table.
***115* VAC**	👍	Check connections & F1 / F2 fuses on PCB.

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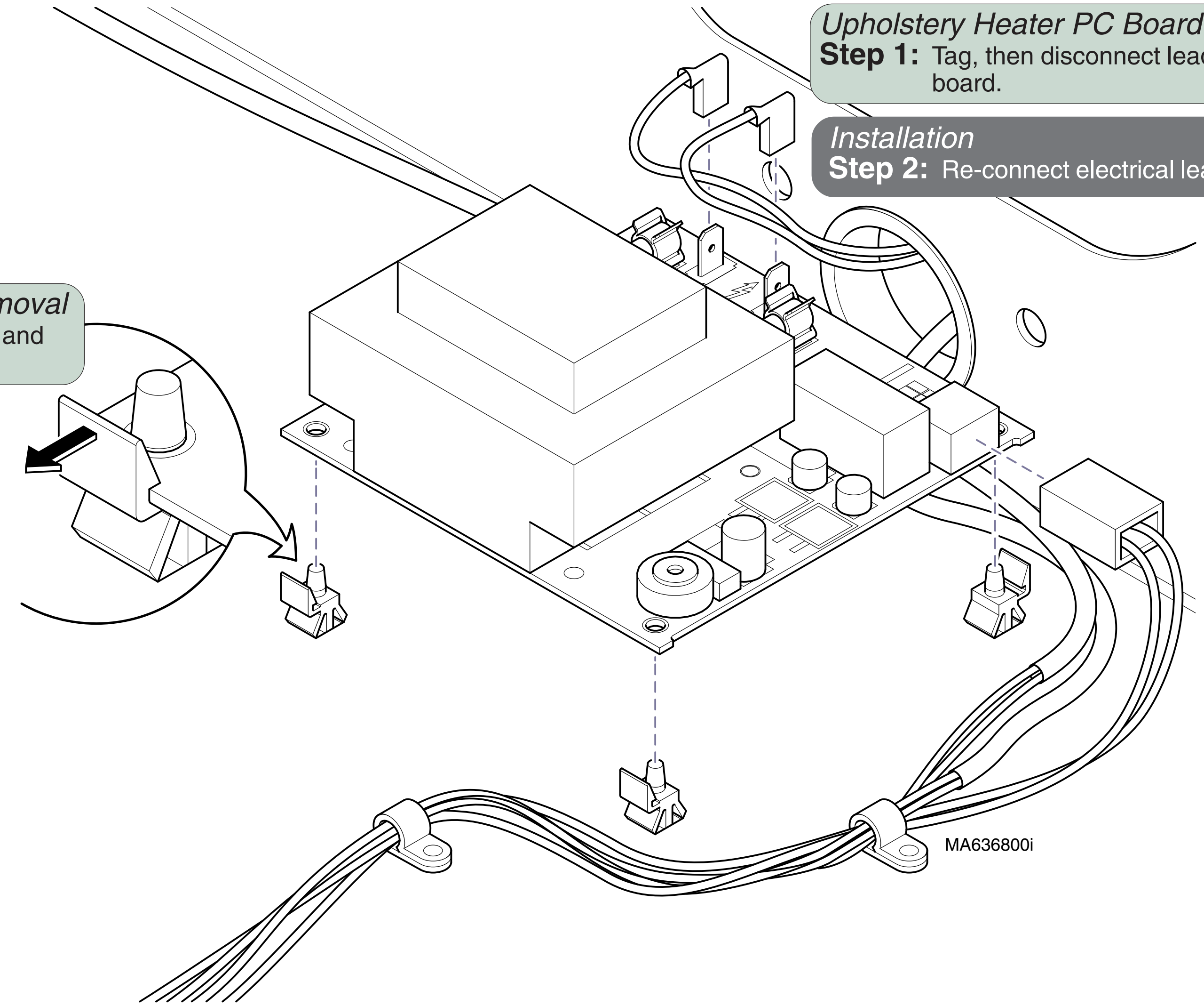
Upholstery Heater System - continued

Upholstery Heater PC Board Replacement

Caution
Unplug power cord before removing PC Board cover.



Upholstery Heater PC Board Removal
Step 1: Tag, then disconnect leads to PC board.

Installation
Step 2: Re-connect electrical leads.

Upholstery Heater PC Board Removal
Step 2: Depress release on standoffs and remove PC Board.

Installation
Step 1: Replace PC Board.

Models:	**622**	**623**
Serial Numbers:	All	All

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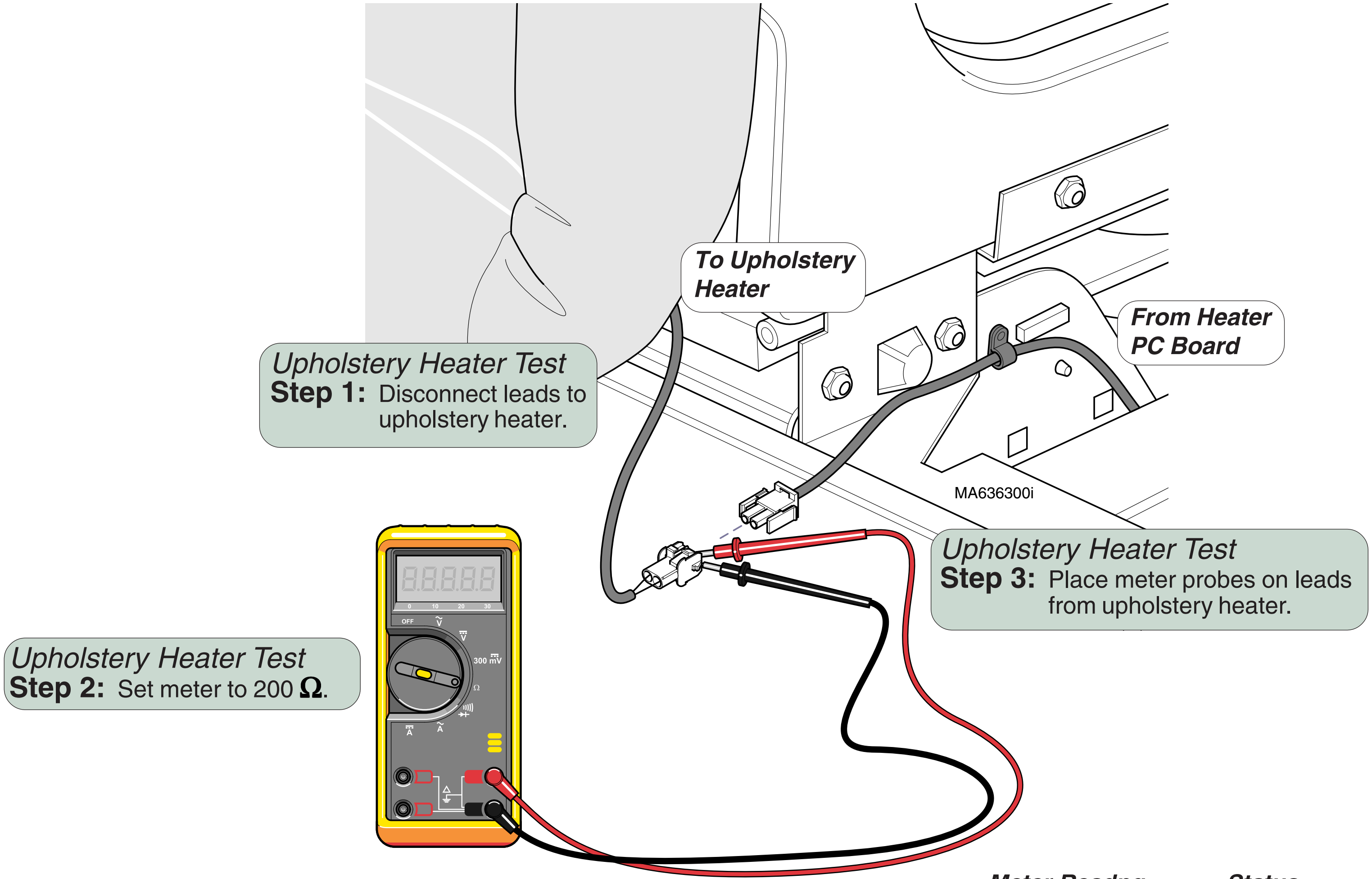
Upholstery Heater System - *continued*

Upholstery Heater Test


To Upholstery Heater
From Heater PC Board
MA636300i

Upholstery Heater Test
Step 1: Disconnect leads to upholstery heater.

Upholstery Heater Test
Step 2: Set meter to 200 Ω.

Upholstery Heater Test
Step 3: Place meter probes on leads from upholstery heater.

Meter Readng	*Status*	*Required Action*
0 Ω	👎	Replace Upholstery
3 - 4 Ω	👍	Check Upholstery Heater Switch.

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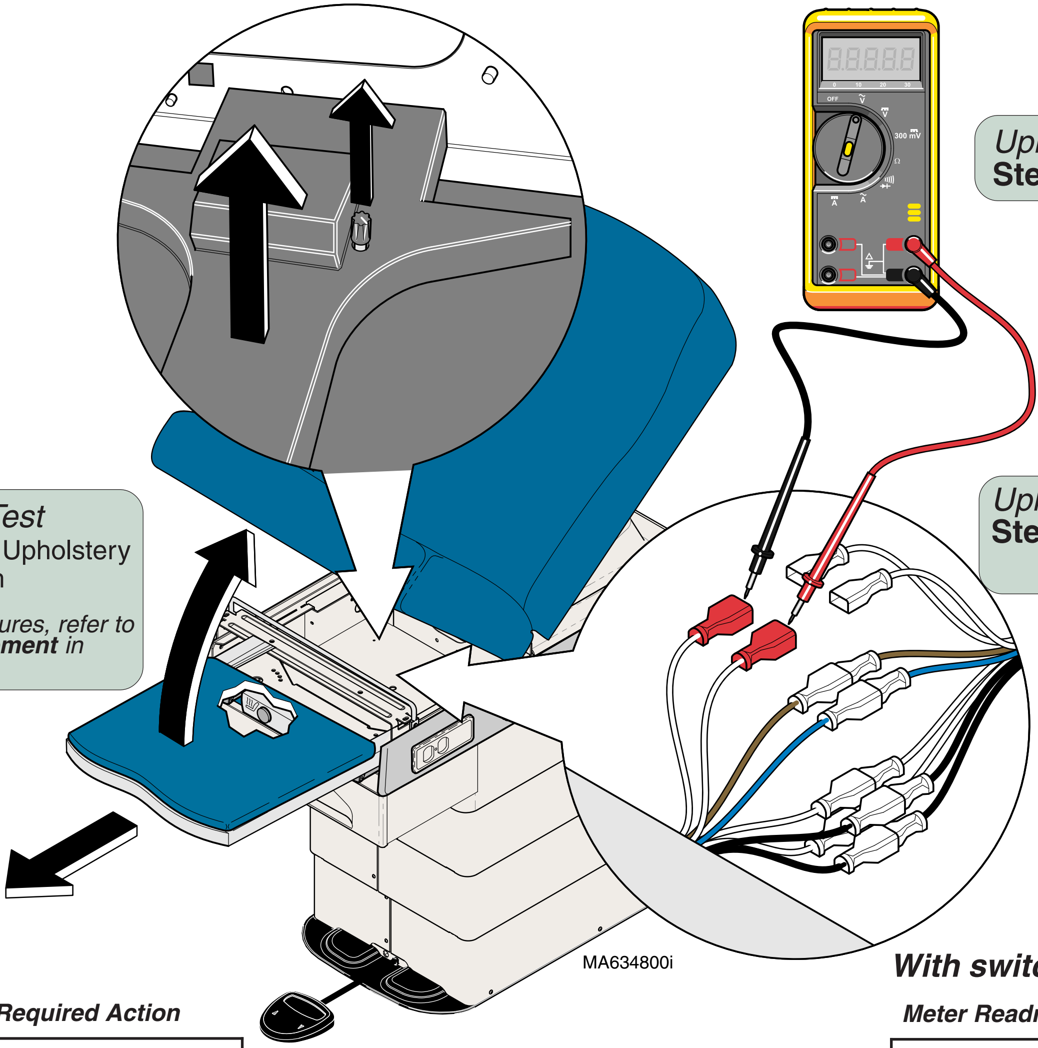
Upholstery Heater System - continued

Upholstery Heater SwitchTest



Upholstery Heater SwitchTest
Step 1: Set meter to 200 **Ω.**

Upholstery Heater SwitchTest
Step 2: Disconnect Black leads from Switch and insert meter probes.

Upholstery Heater SwitchTest
Step 3: Depress & hold in the Upholstery Heater (Green) Switch

Note: *For replacement procedures, refer to **Heater Switch Replacement** in Drawer Heater System*

With switch 'tripped'...

Meter Readng	*Status*	*Required Action*
Any resistance reading	👍	Switch is good. Perform next check.
OL	👎	Replace switch

With switch 'untripped'...

Meter Readng	*Status*	*Required Action*
Any resistance reading	👎	Replace switch.
OL	👍	Switch is good. Perform next check.

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Go To Table Of Contents

Access Procedures

Procedure

Go To Page:

Table Shrouds *(Remove / Install)* C-2
Manually Raising / Lowering Table C-5

Upholstered Top *(Remove / Install)*:

Ritter models C-6*
Midmark models C-7*
Chair Arm / Brace Removal C-8
Top Cover *(Remove Install)* C-9
Back Limit Switch Access C-9

Click on the Go To Page button and enter the desired page number. (Note: Letters are case sensitve. ex. C-2)

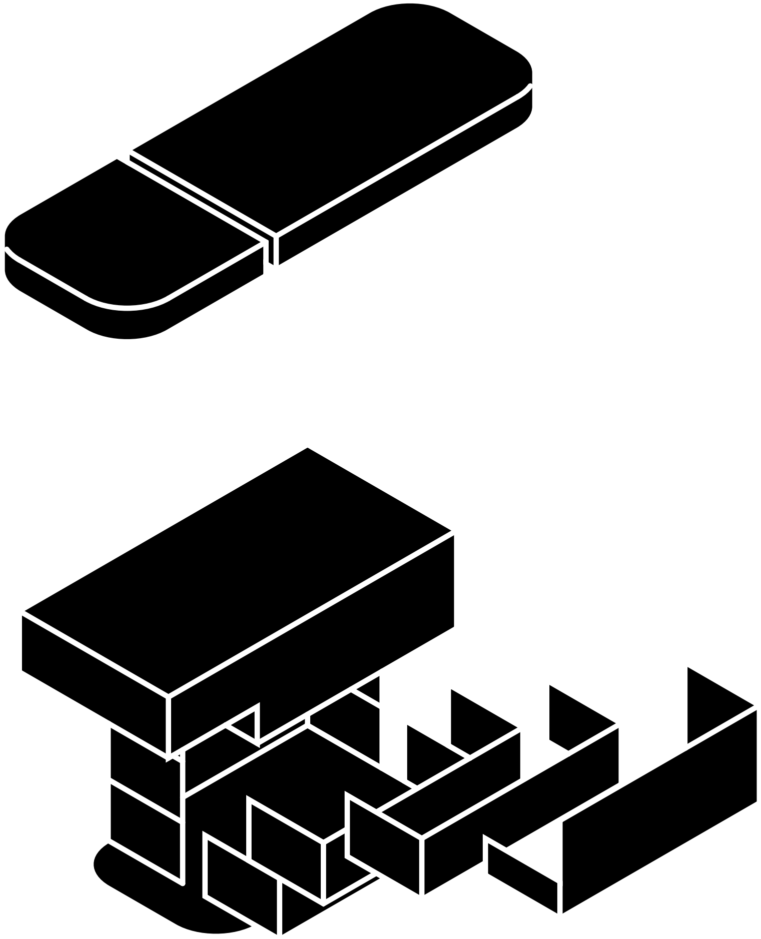

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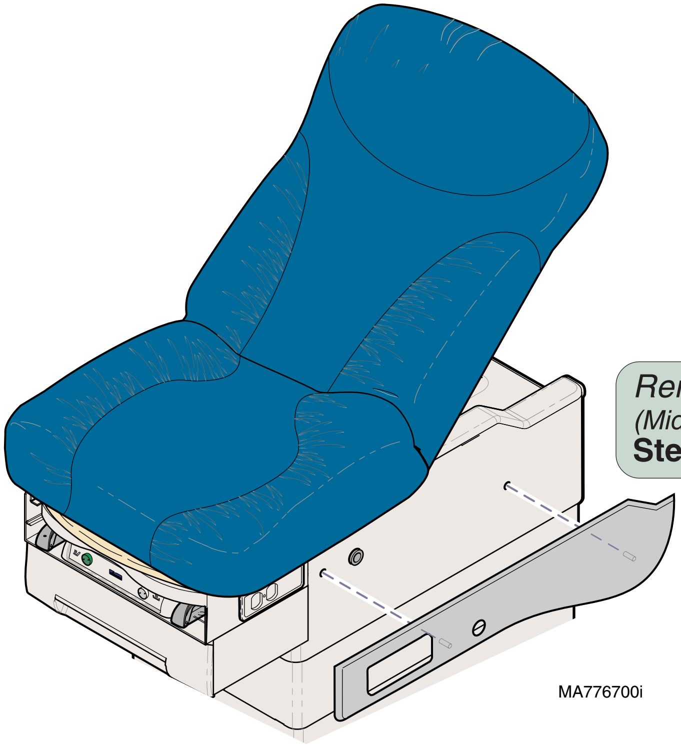
Table Shrouds

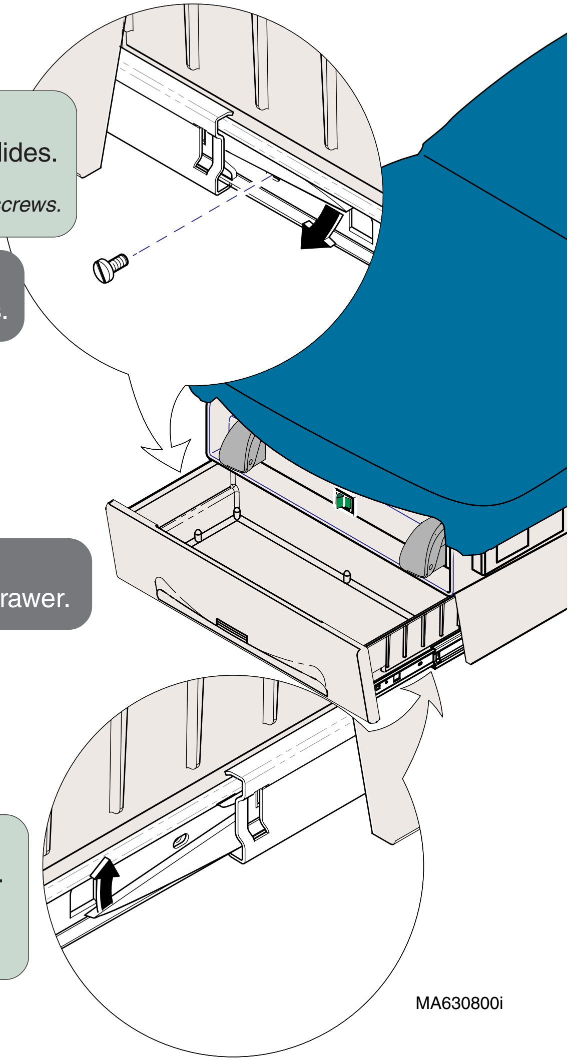
Removal / Installation

Note
Remove all accessories *(ex. chair arms)* before performing this procedure.

Refer To: **Go To Page:**
Exploded Views / Part Numbers:
Table Shrouds (Ritter models) E-14*
Table Shrouds (Midmark models) E-15*
** multiple pages due to model / serial # break*


MA776700i

Removal
(Midmark models only)
Step 1: Remove magnetic cladding.


MA630800i

Removal
Step 2: Remove screw(s) from drawer slides.

Note: *Tables w/o drawer heater do not have screws.*

Removal
Step 3: Push LH slide lever UP and RH lever DOWN. Remove drawer.

Note: *Slide levers are clear plastic.*

Installation
Step 6: Install drawer.

Installation
Step 7: Install screw(s) in drawer slides.

Models: ***All***
Serial Numbers: *All*

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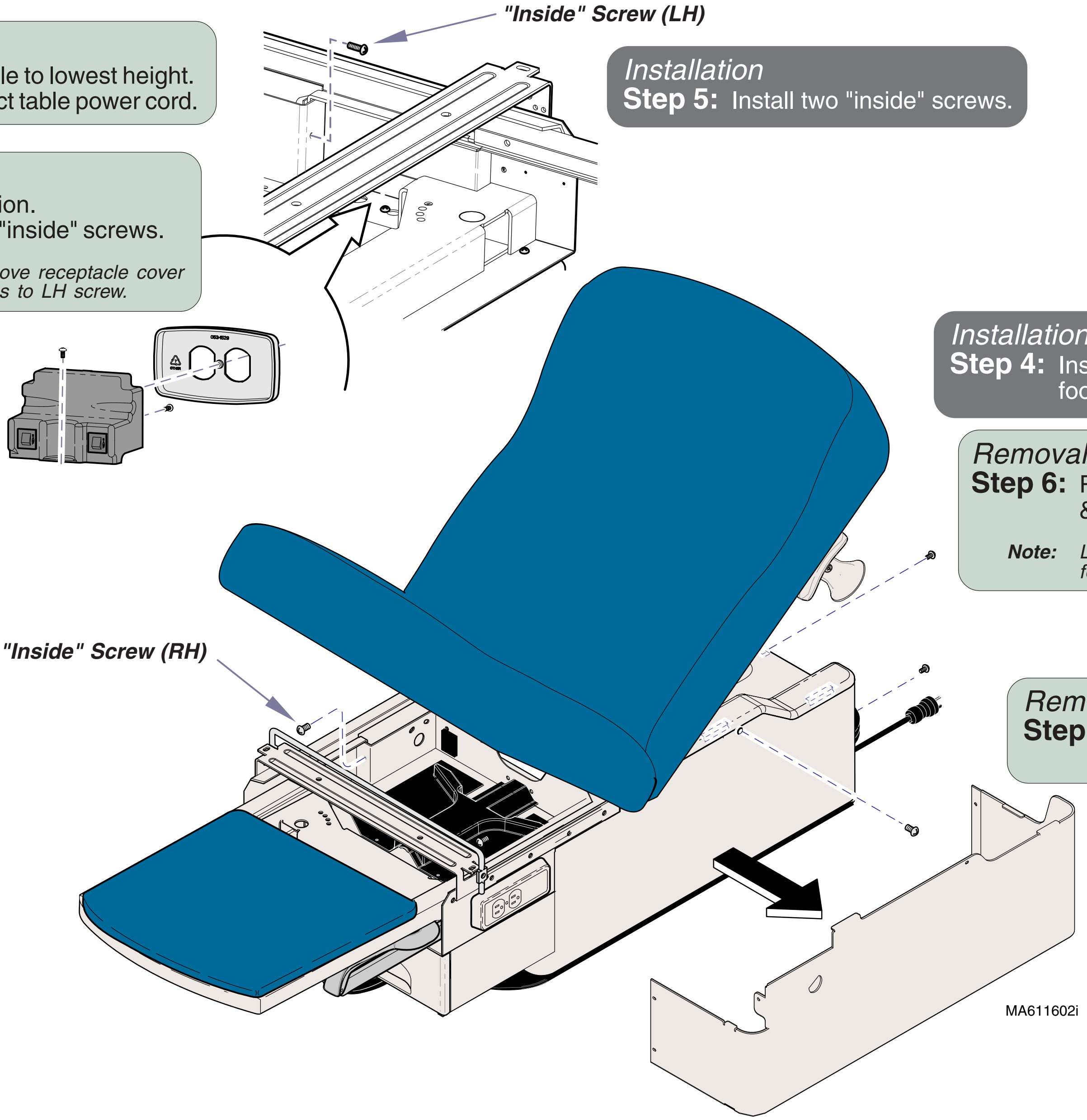
Table Shrouds - continued

Removal / Installation

Removal
Step 4: Lower table to lowest height. Disconnect table power cord.

Removal
Step 5: Lift seat section. Remove two "inside" screws.

Note: *If necessary, move receptacle cover for better access to LH screw.*



Installation
Step 5: Install two "inside" screws.

Installation
Step 4: Install screws at head-end & foot-end of outer shrouds.

Removal
Step 6: Remove screws from head-end & foot-end of outer shrouds.

Note: *Lower the drawer front to access foot-end screws.*

Removal
Step 7: Remove side screw & outer shroud. Repeat for other side.

Installation
Step 3: Position outer shroud. Install side screw. Repeat on opposite side.

Models:	***All***
Serial Numbers:	*All*

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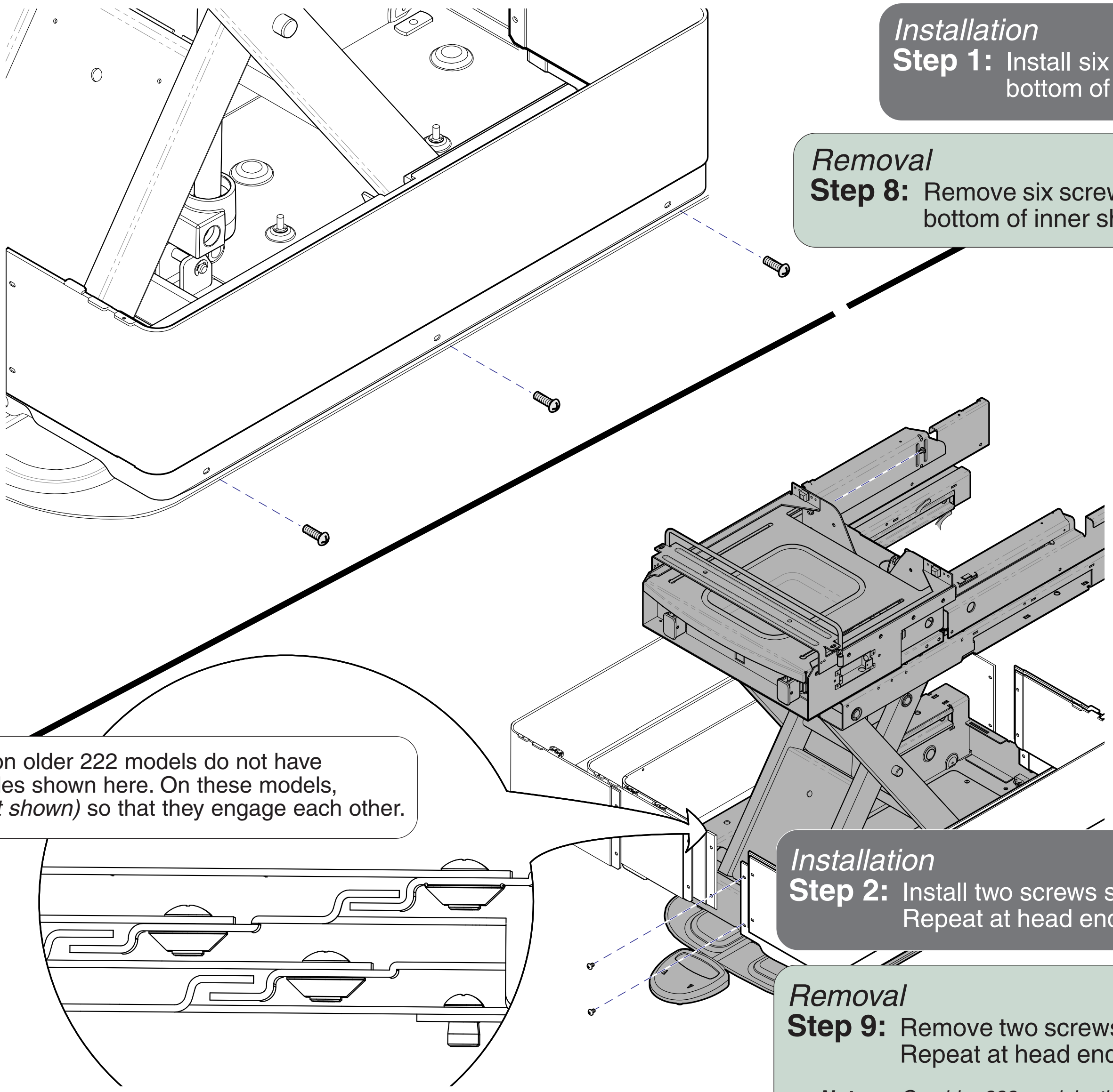
Table Shrouds - *continued*

Removal / Installation



Installation
Step 1: Install six screws securing bottom of inner shrouds.

Removal
Step 8: Remove six screws securing bottom of inner shrouds.

Note: The shrouds on older 222 models do not have the offset guides shown here. On these models, align tabs *(not shown)* so that they engage each other.

Installation
Step 2: Install two screws securing each set of shrouds. Repeat at head end of table.

Removal
Step 9: Remove two screws securing each set of shrouds. Repeat at head end of table.

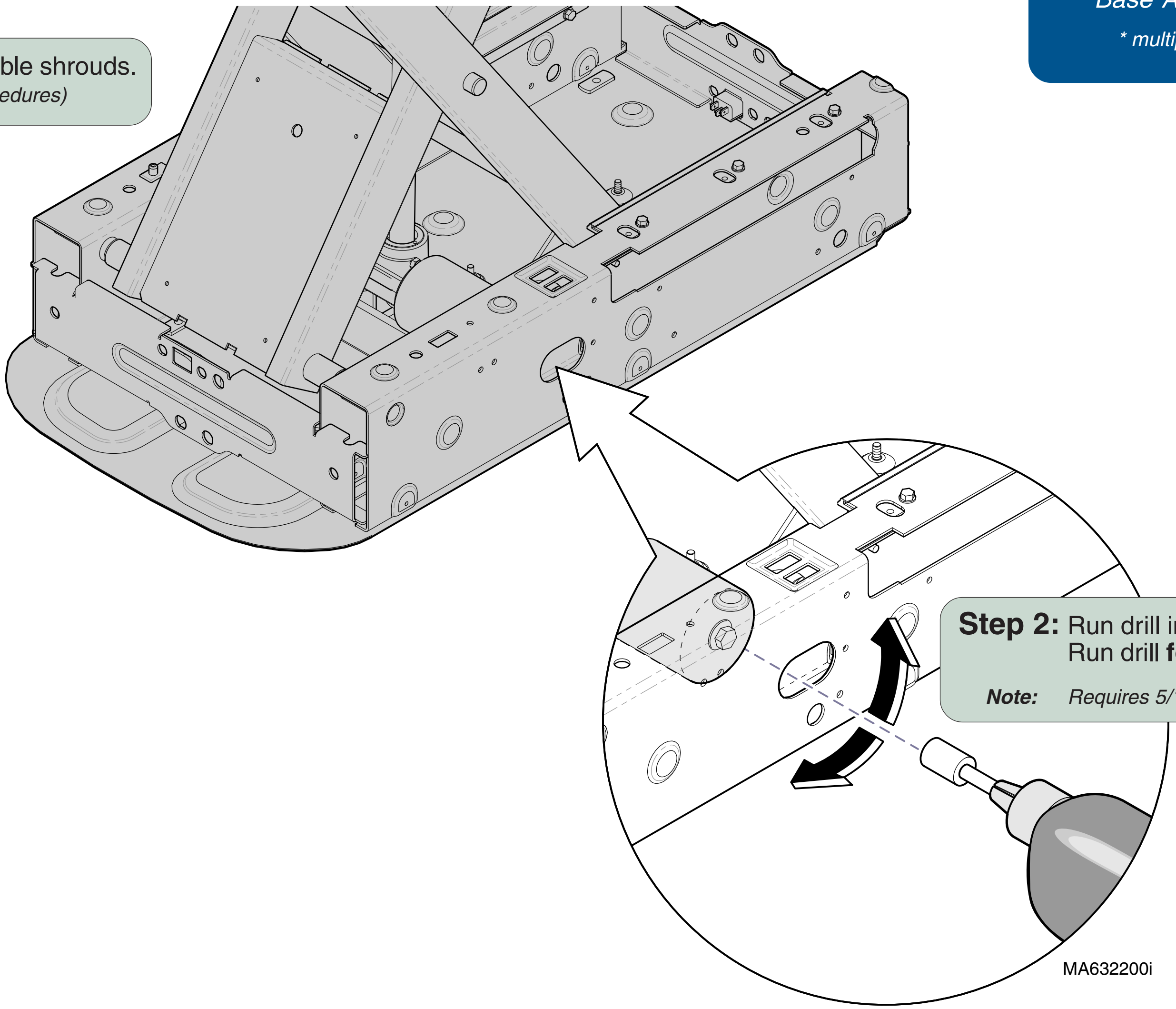
Note: *On older 222 models, there is a wire connecting the shrouds. This* *must* *remain in place to ensure proper grounding.*

Models: ***All***
Serial Numbers: *All*

Manually Raising / Lowering Table

Refer To: **Go To Page:**
Exploded Views / Part Numbers:
Ritter Base Components E-20*
Midmark Base Components E-21*
Base Actuator E-22
* multiple pages due to model / serial # break

Step 1: Remove table shrouds.
(Access Procedures)



Step 2: Run drill in **reverse** to **raise** table.
Run drill **forward** to **lower** table.

Note: *Requires 5/16" socket w/ extension.*

MA632200i

Models:	***All***
Serial Numbers:	*All*

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Upholstered Top ***(Ritter models)***

Removal / Installation

(Soft Touch Top shown)

Refer To: **Go To Page:**

Exploded Views / Part Numbers:

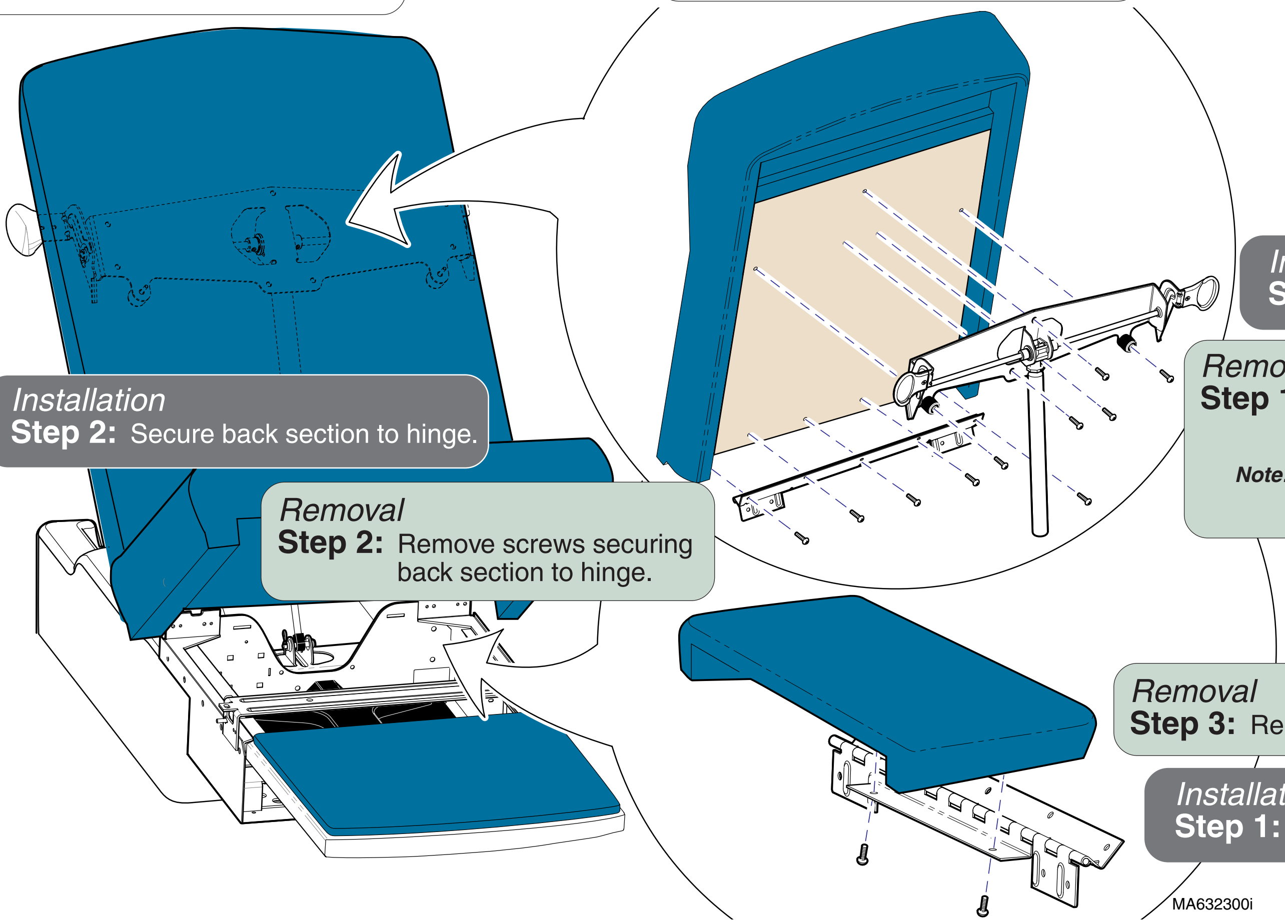
Upholstery - Ritter :

Soft Touch E-6

Seamless E-7

Attention
Seamless / Styled tops are one piece.
The replacment procedure is similar.

⚠ ***Caution***
Hold back section in place
when performing steps 1 & 2.



Removal
Step 1: Remove screws securing back release bracket.

Note: *The manual back model is shown. The procedure for power back models is similar.*

Removal
Step 2: Remove screws securing back section to hinge.

Removal
Step 3: Remove seat section.

Installation
Step 1: Secure seat section.

Installation
Step 2: Secure back section to hinge.

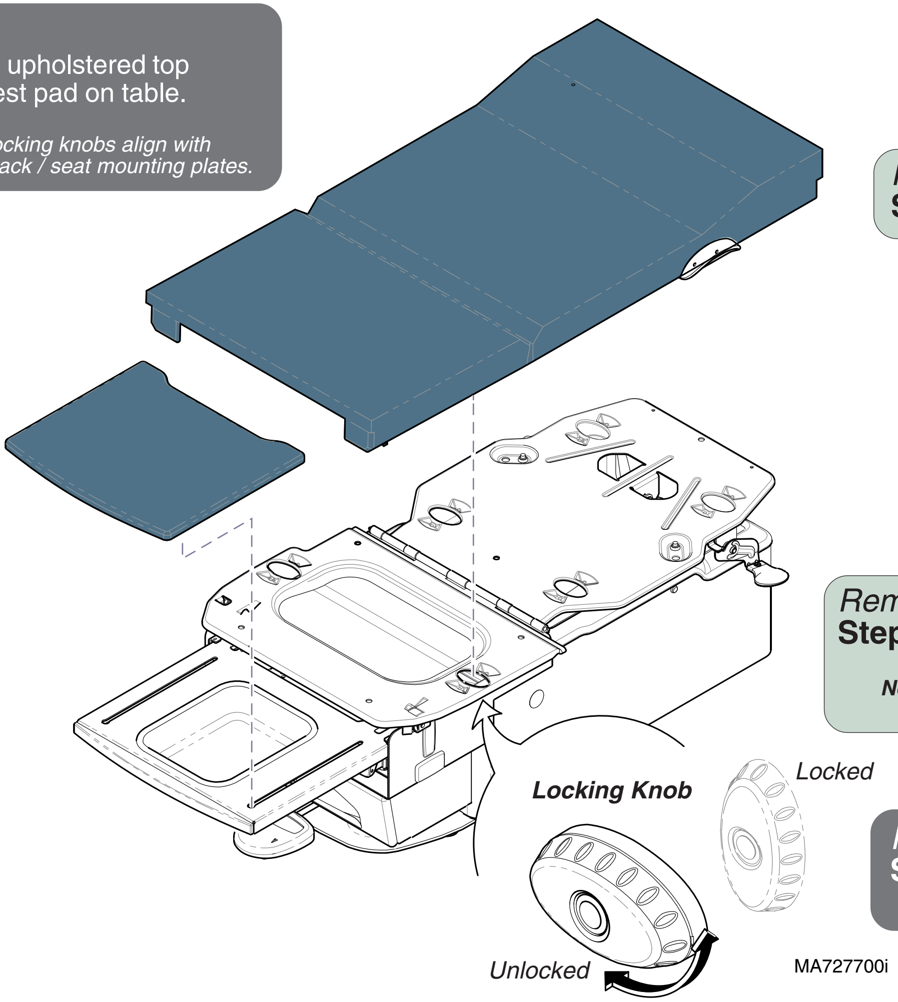
Installation
Step 3: Secure back release bracket.

Upholstered Top (Ritter models)

Removal / Installation

(Soft Touch Top shown)

Refer To: Go To Page:
Exploded Views / Part Numbers:
Upholstery - Ritter :
Soft Touch E-6.1
Seamless E-7.1



Removal
Step 1: Rotate all locking knobs to unlocked position.

Note: *There are four locking knobs under back section, and two knobs under seat section.*

Removal
Step 2: Remove upholstered top & footrest pad.

Installation
Step 1: Position upholstered top & footrest pad on table.

Note: *Be sure locking knobs align with holes in back / seat mounting plates.*

Installation
Step 2: Rotate locking knobs to locked position.

Models: Serial Numbers:	**222** (-015 thru -017) *All*	**223** (-015 thru -016) *All*

Go To Table Of Contents

Component Testing & Repair

Upholstered Top *(Midmark models)*

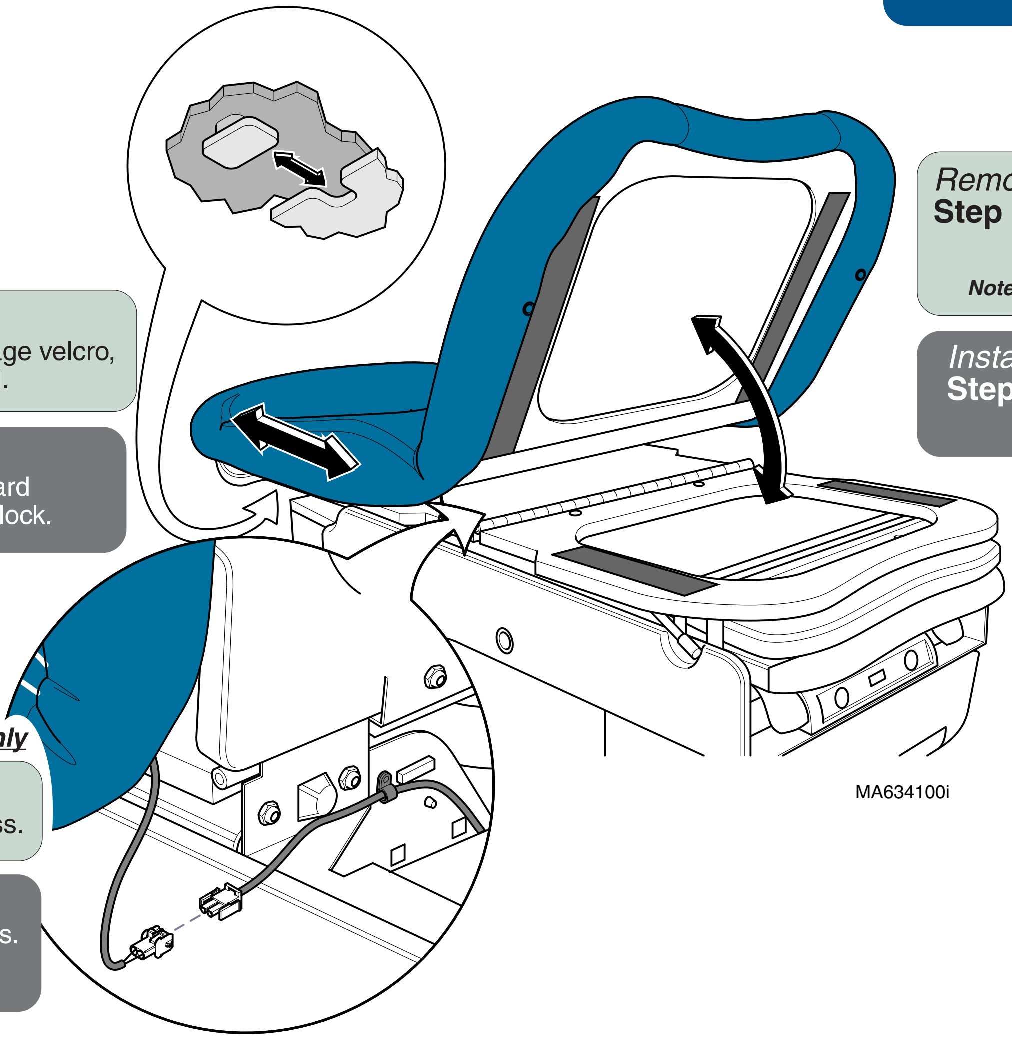
Removal / Installation

Refer To: **Go To Page:**

Exploded Views / Part Numbers:

Upholstery - Midmark:

Premium	E-8
Ultra-Premium	E-9



Removal
Step 2: Hold mounting frame in place, then lift seat section.

Note: *Upholstery is secured with velcro.*

Installation
Step 2: Lower seat section and press down firmly to engage velcro.

Removal
Step 3: Lift back section to disengage velcro, then push toward head end.

Installation
Step 1: Slide back section toward foot end to engage T-block.

Models w/ upholstery heater only

Removal
Step 1: Disconnect wire harness.

Installation
Step 3: Connect wire harness.

Note: *Do not pinch wire.*

Models:	***622*** *(-001 thru -006)*	***623*** *(-001 thru -006)*
Serial Numbers:	*All*	*All*

Go To Table Of Contents

Upholstered Top *(Midmark models)*

Refer To: **Go To Page:**

Exploded Views / Part Numbers:

Upholstery - Midmark:

Premium E-8.1

Ultra-Premium E-9.1

Removal / Installation

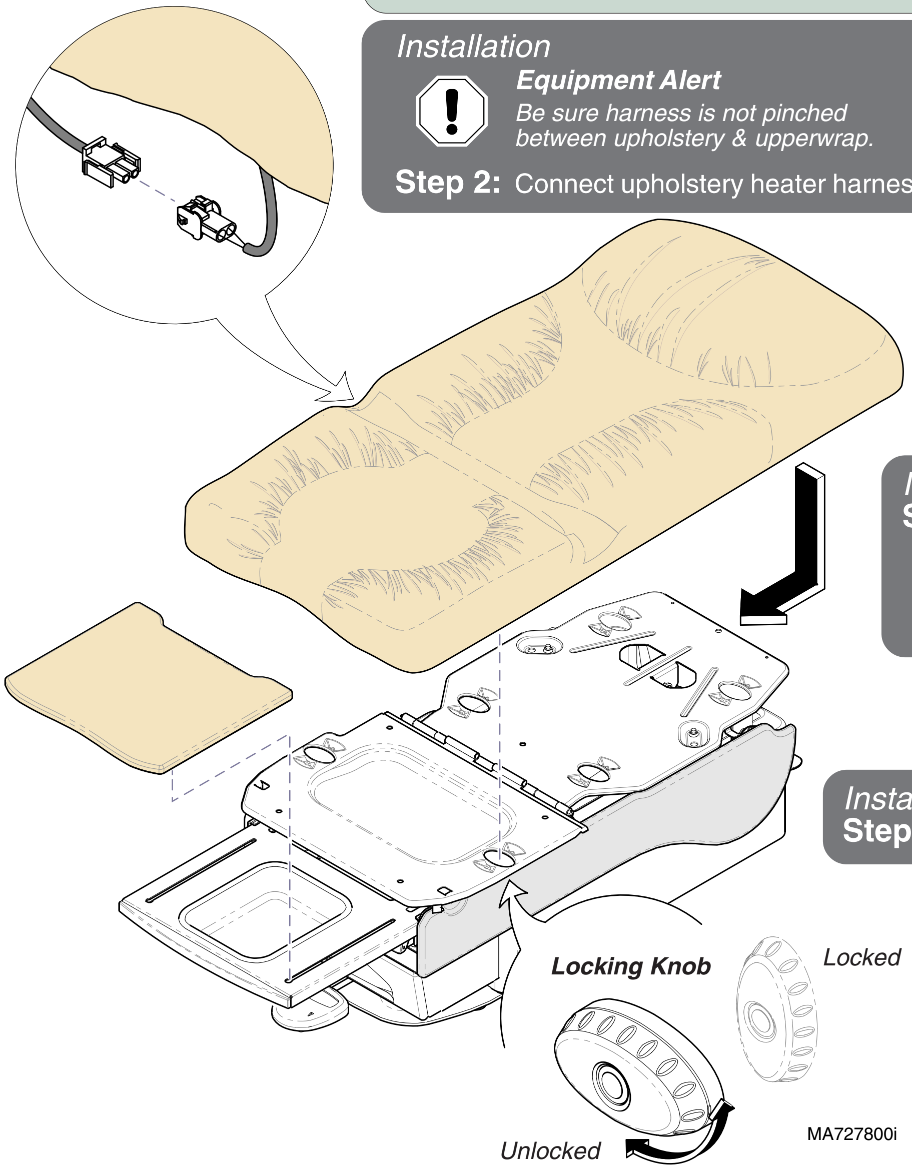
Step 2 applies only to models with optional upholstery heater.

Removal
Step 2: Disconnect upholstery heater harness.

Installation

Equipment Alert
Be sure harness is not pinched between upholstery & upperwrap.

Step 2: Connect upholstery heater harness.



Removal
Step 3: Remove upholstered top & footrest pad.

Note: *Slide upholstery up to remove from back support plate.*

Installation
Step 1: Position upholstered top & footrest pad on table.

Note: *Back support plate must slide under paper roll holder.*

Be sure locking knobs align with holes in back / seat mounting plates.

Installation
Step 3: Rotate locking knobs to locked position.

Removal
Step 1: Rotate all locking knobs to unlocked position.

Note: *There are four locking knobs under back section, and two knobs under seat section.*

Models:	***622*** ***(-007 & -008)***	***623*** ***(-007 thru -011)***
Serial Numbers:	*All*	*All*

Rev. 1/17/13

Component Testing & Repair

Chair Arms / Brace (optional)

Removal

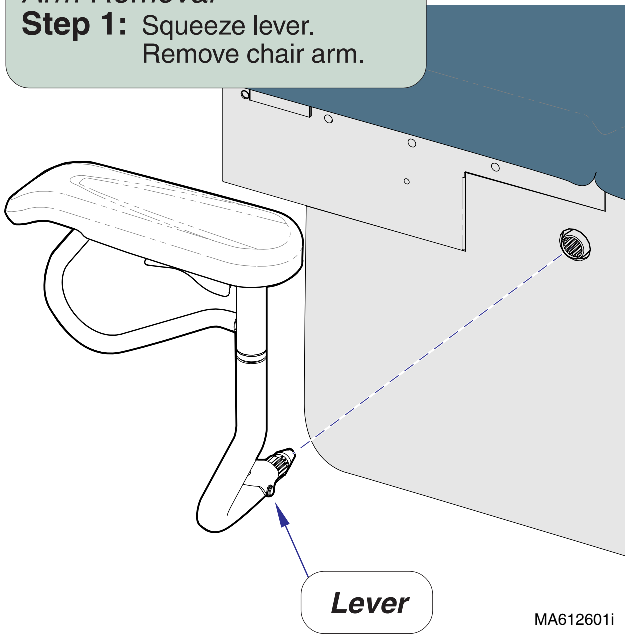
Refer To: Go To Page:

Exploded Views / Part Numbers:

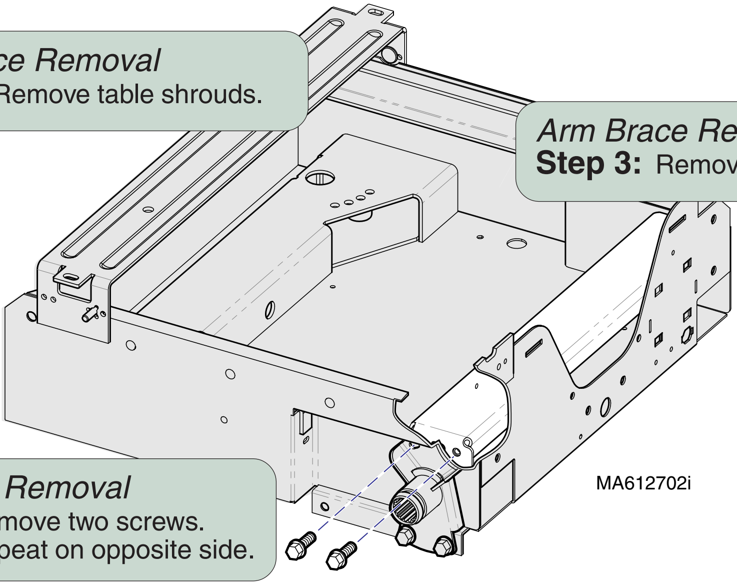
Refer to Midmark Medical Accessory Service & Parts Manual (004-0096-00)

Arm Removal

Step 1: Squeeze lever. Remove chair arm.



It may be necessary to remove the chair arm brace when performing certain procedures.



Arm Brace Removal

Step 1: Remove table shrouds.

Arm Brace Removal

Step 2: Remove two screws. Repeat on opposite side.

Arm Brace Removal

Step 3: Remove brace.

Go To Table Of Contents

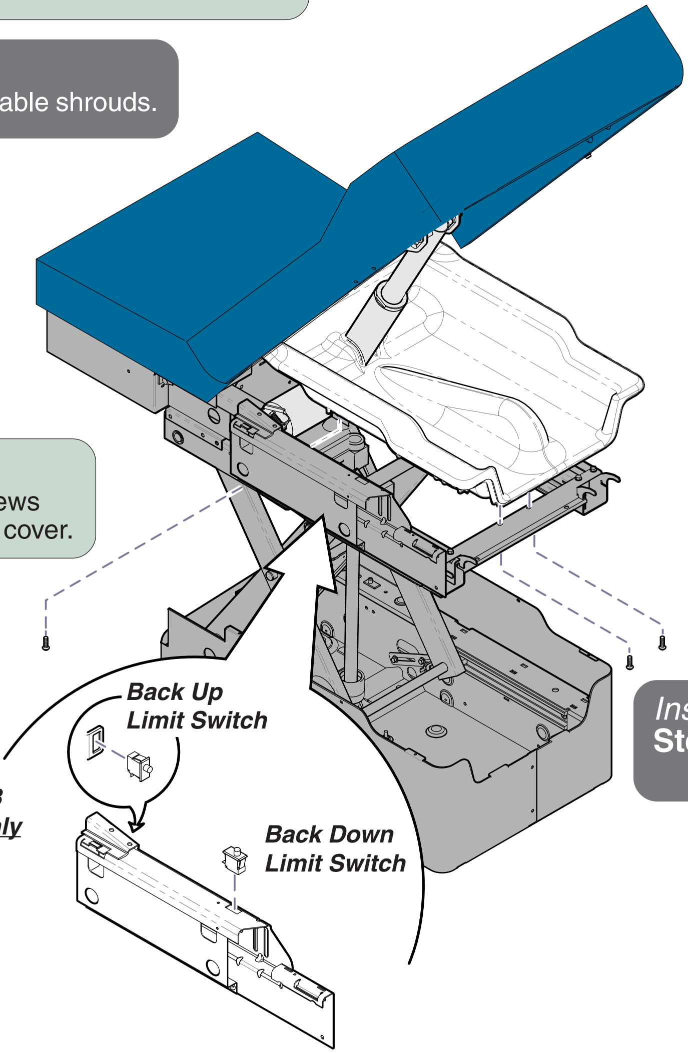
Top Cover (Back Limit Switch Access)

Removal / Installation

Refer To: | **Go To Page:**
Table Shrouds C-2

Removal
Step 1: Lower table shrouds.
Refer to: Section C - Table Shrouds

Installation
Step 2: Reattach table shrouds.

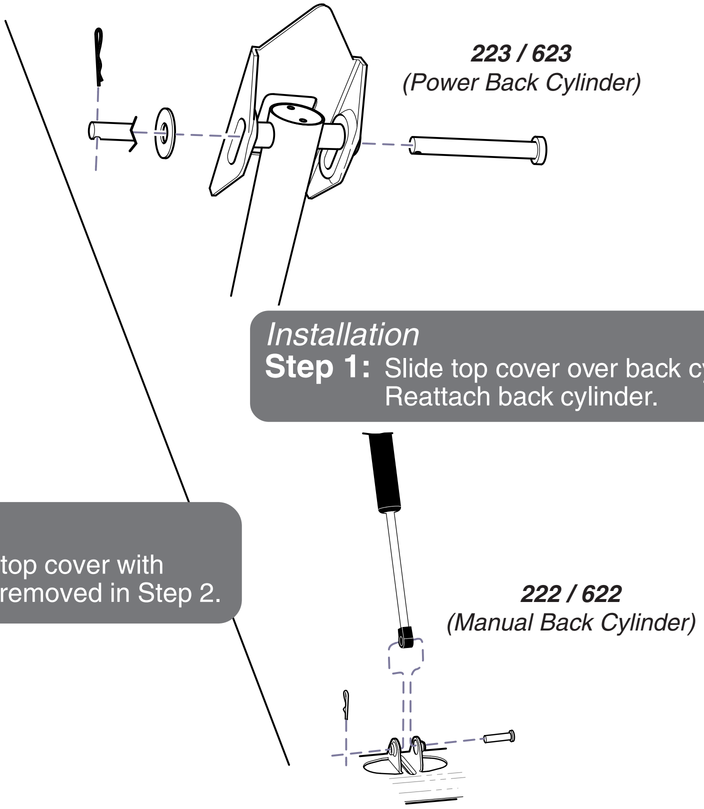


Back Up
Limit Switch
223 / 623
Models only
Back Down
Limit Switch

Removal
Step 2: Remove screws securing top cover.

Removal
Note
The back limit switches can be accessed without completely removing the top cover. But if removing the cover is necessary, perform Step 3.

Step 3: Partially serparate the back lift cylinder as shown. Slide top cover off of cylinder.



223 / 623
(Power Back Cylinder)
222 / 622
(Manual Back Cylinder)

MA736300i

Installation
Step 1: Slide top cover over back cylinder. Reattach back cylinder.

Installation
Step 2: Secure top cover with screws removed in Step 2.

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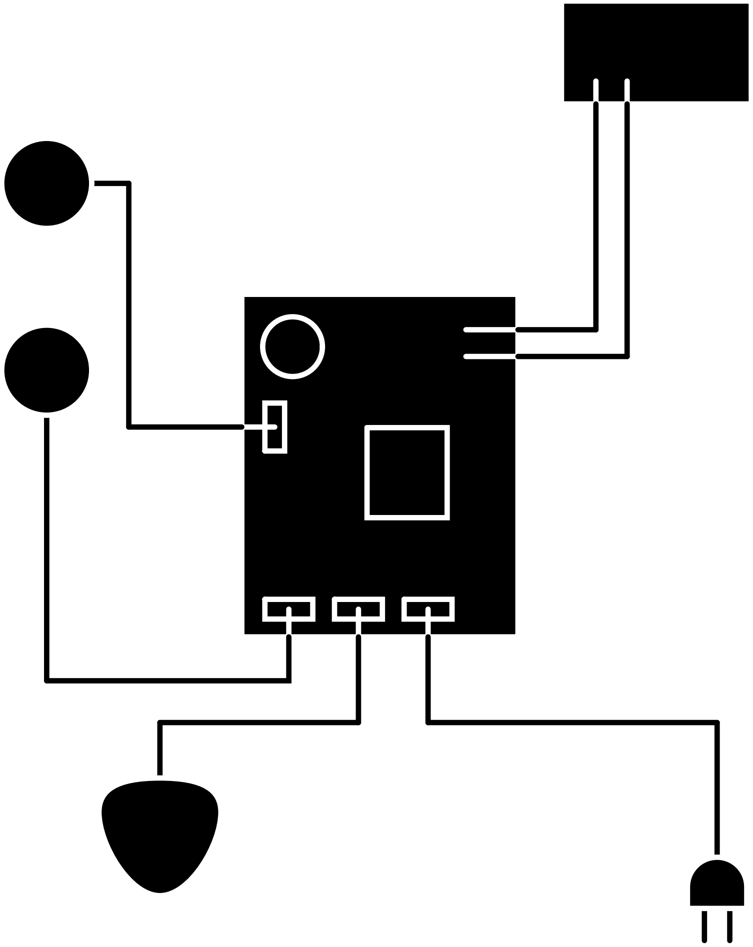
Section D

Wiring Diagrams



Model

Go To Page:

222:

(-001 & -005) D-2
(-002 & -006) D-3
(-003 & -007) D-4
(-004 & -008) D-5
(-009 & -017) D-6
(-010) D-7
(-011 & -013) D-8
(-012 & -014) D-9
(-015) D-10
(-016) D-11

223:

(-001 & -005) D-12
(-002 & -006) D-13
(-003 & -007) D-14
(-004 & -008) D-15
(-009) D-16
(-010) D-17
(-011 & -013) D-18
(-012 & -014) D-19
(-015) D-20
(-016) D-21

622:

(-001) D-3
(-002) D-22
(-003) D-6
(-004) D-23
(-005) D-8
(-006) D-24
(-007) D-10
(-008) D-25

623:

(-001) D-26
(-002) D-27
(-003 & -009) D-28
(-004) D-29
(-005) D-30
(-006) D-31
(-007) D-32
(-008) D-33
(-010) D-29*
(-011) D-34

Click on the Go To Page button and enter the desired page number. (Note: Letters are case sensitve. ex. D-2)

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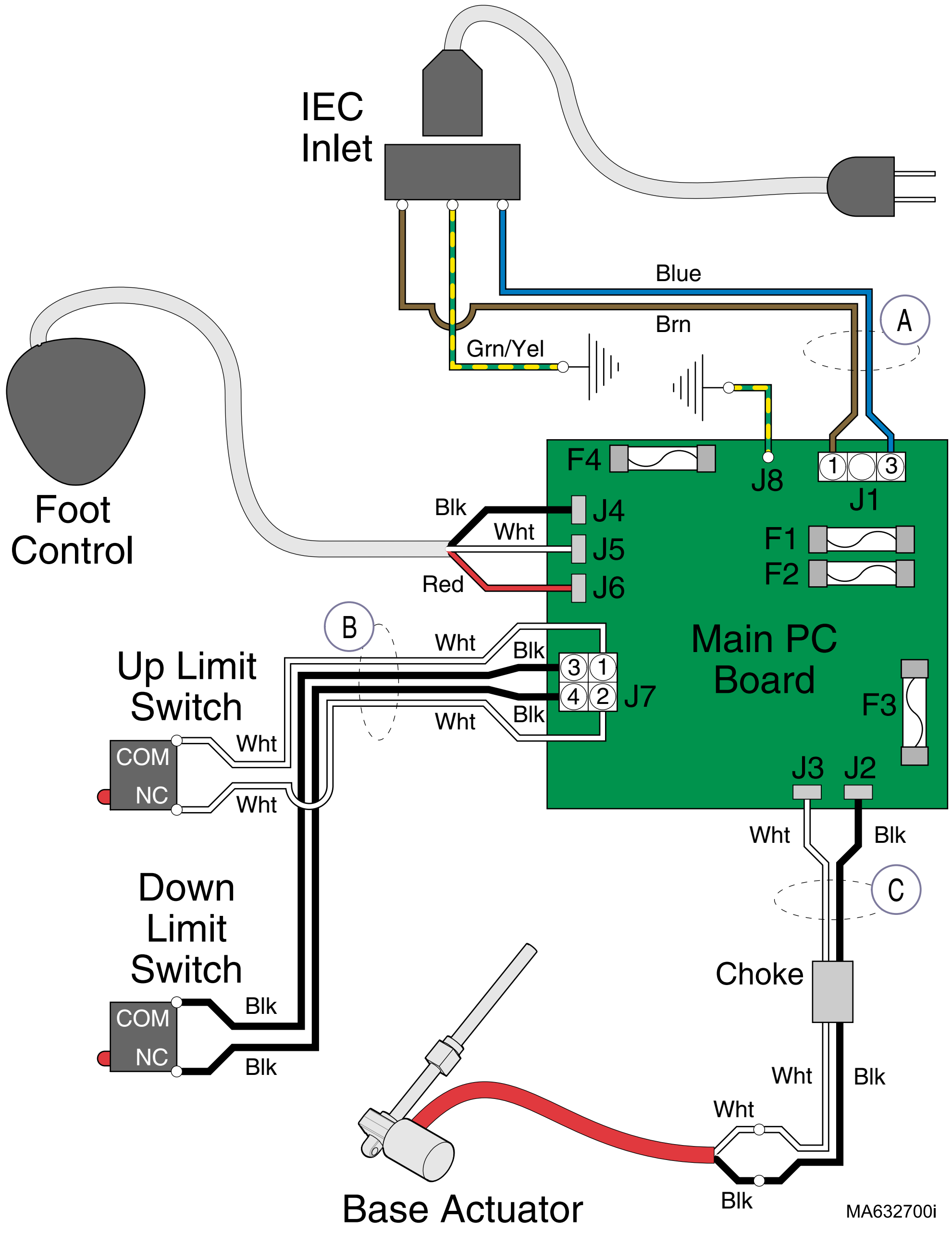
Wiring Diagrams

Refer To: Go To Page:
Fuses E-25


IEC
Inlet
Blue
Brn
Grn/Yel
A
Foot
Control
F4
J8
1
3
J1
Blk
Wht
Red
J4
J5
J6
F1
F2
B
Up Limit
Switch
Wht
Blk
Wht
Blk
3
1
4
2
J7
Main PC
Board
F3
COM
NC
Wht
Wht
J3
J2
Wht
Blk
C
Down
Limit
Switch
COM
NC
Blk
Blk
Choke
Wht
Blk
Wht
Base Actuator
Blk
MA632700i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1579-00** *(includes Item B)*
B	Base Up/Down Limit Switches	Main PC Board	**015-1579-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*

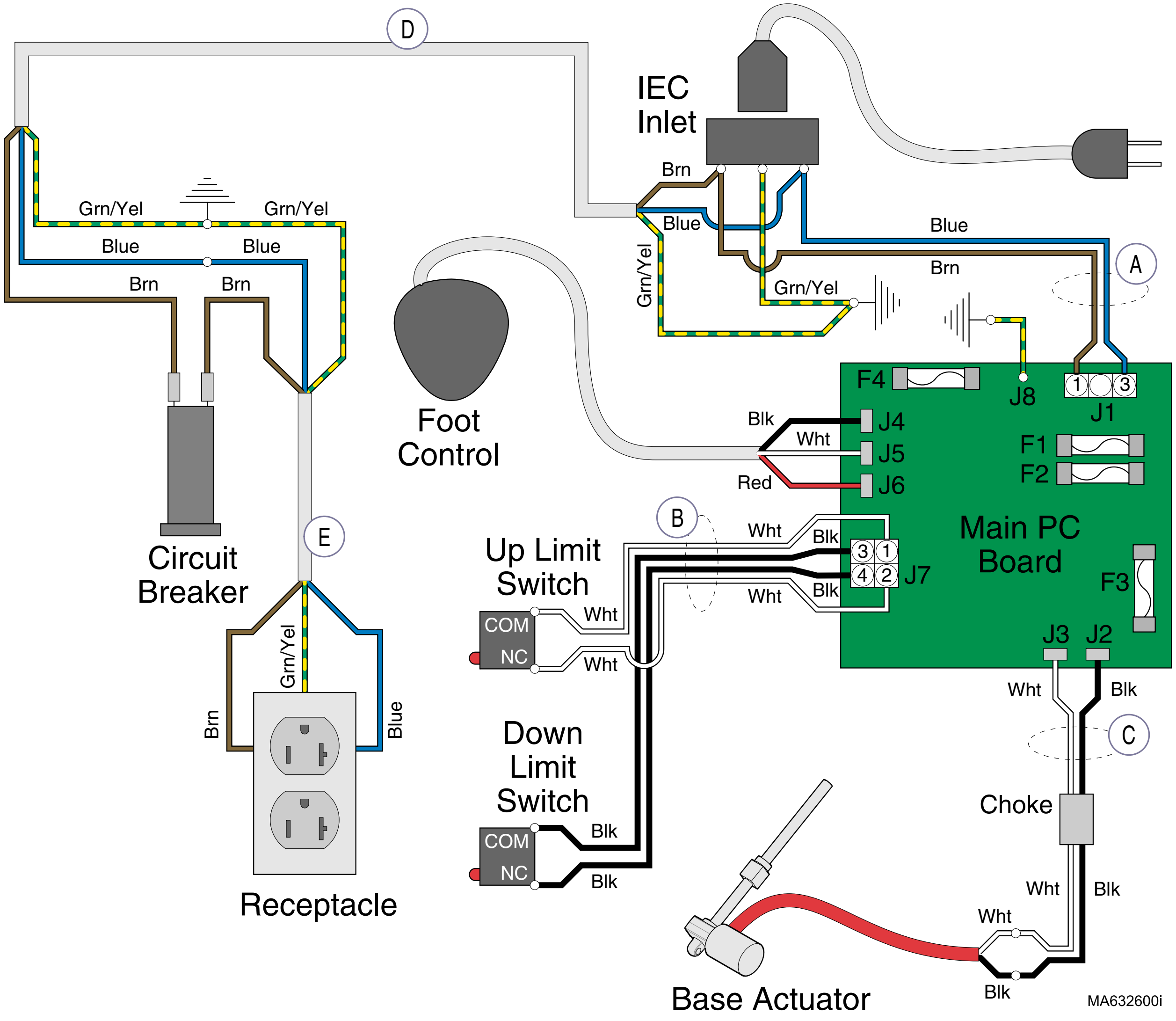
Go To Table Of Contents

Wiring Diagrams

Refer To:

Go To Page:

Fuses E-25


D
IEC Inlet
Brn
Blue
Grn/Yel
Blue
Brn
Grn/Yel
A
Grn/Yel
Grn/Yel
Blue
Blue
Brn
Brn
Foot Control
F4
J8
1
3
J1
Blk
Wht
Red
J4
J5
J6
F1
F2
B
Wht
Blk
3
1
4
2
J7
Blk
Wht
Main PC Board
F3
Up Limit Switch
COM
NC
Wht
Wht
Circuit Breaker
E
Grn/Yel
Brn
Blue
Receptacle
J3
J2
Wht
Blk
C
Choke
Down Limit Switch
COM
NC
Blk
Blk
Wht
Blk
Wht
Blk
Base Actuator
MA632600i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1579-00** *(includes Item B)*
B	Base Up/Down Limit Switches	Main PC Board	**015-1579-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Circuit Breaker	IEC Inlet	**015-1594-30**
E	Receptacle	Circuit Breaker	**015-1595-00**

Models: ***Serial Numbers:***	***222** (-002 & -006)* all	***622** (-001)* all

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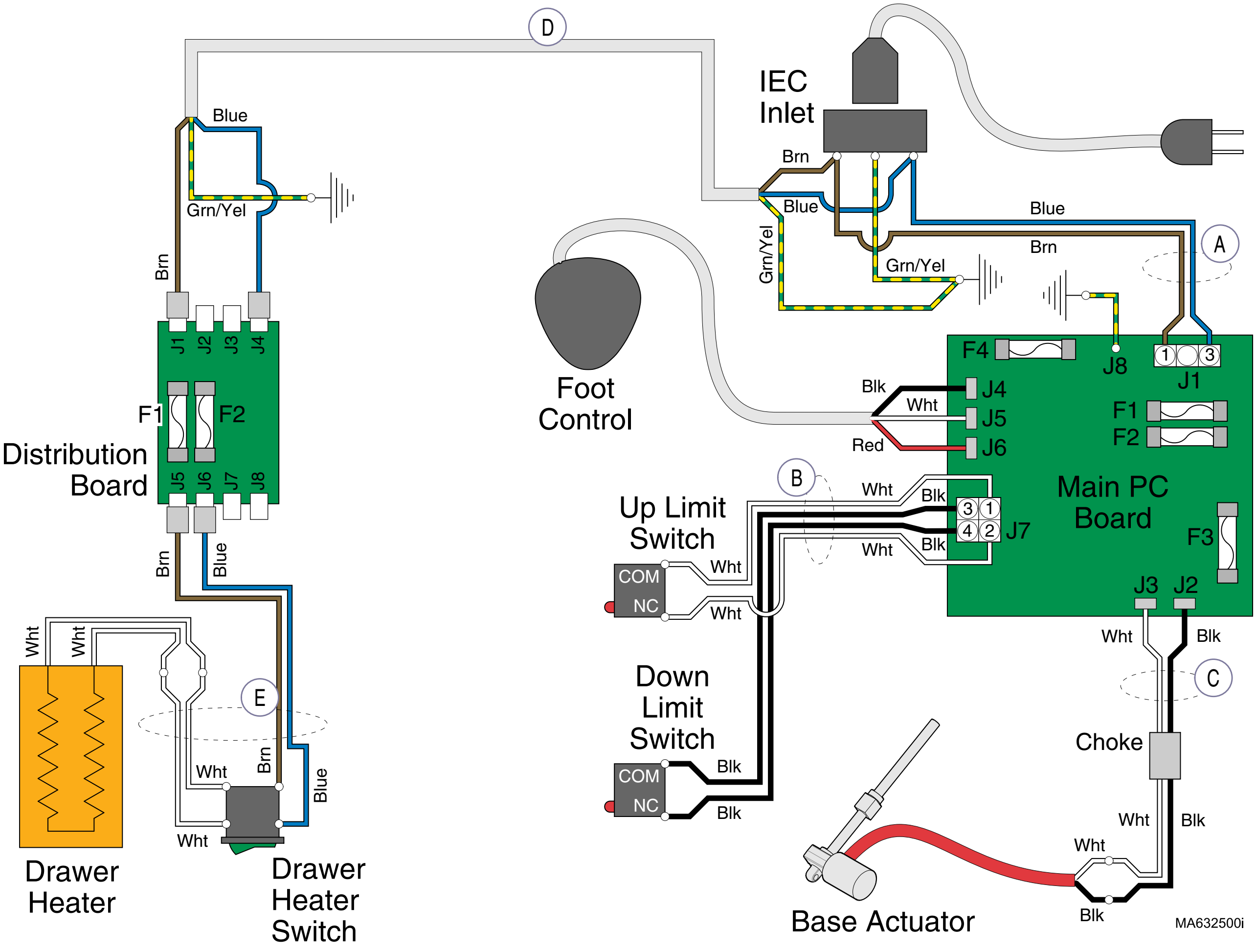
Wiring Diagrams

Refer To: **Go To Page:**
Fuses E-25


D
IEC Inlet
Blue
Grn/Yel
Brn
Brn
Blue
Grn/Yel
Blue
Brn
Grn/Yel
A
J1 J2 J3 J4
F1
F2
Distribution Board
J5 J6 J7 J8
Brn
Blue
Foot Control
F4
J8
1 3
J1
Blk
Wht
Red
J4
J5
J6
F1
F2
Main PC Board
B
Wht
Blk
Up Limit Switch
Wht
COM
NC
Wht
3 1
4 2
J7
Wht
Blk
F3
J3 J2
Wht
Blk
C
Choke
Down Limit Switch
COM
NC
Blk
Blk
Wht
Wht
Wht
Brn
E
Wht
Blue
Wht
Drawer Heater
Drawer Heater Switch
Base Actuator
Wht
Blk
Wht
Blk
MA632500i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1579-00** *(includes Item B)*
B	Base Up/Down Limit Switches	Main PC Board	**015-1579-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Distribution Board	IEC Inlet	**015-1594-00**
E	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**

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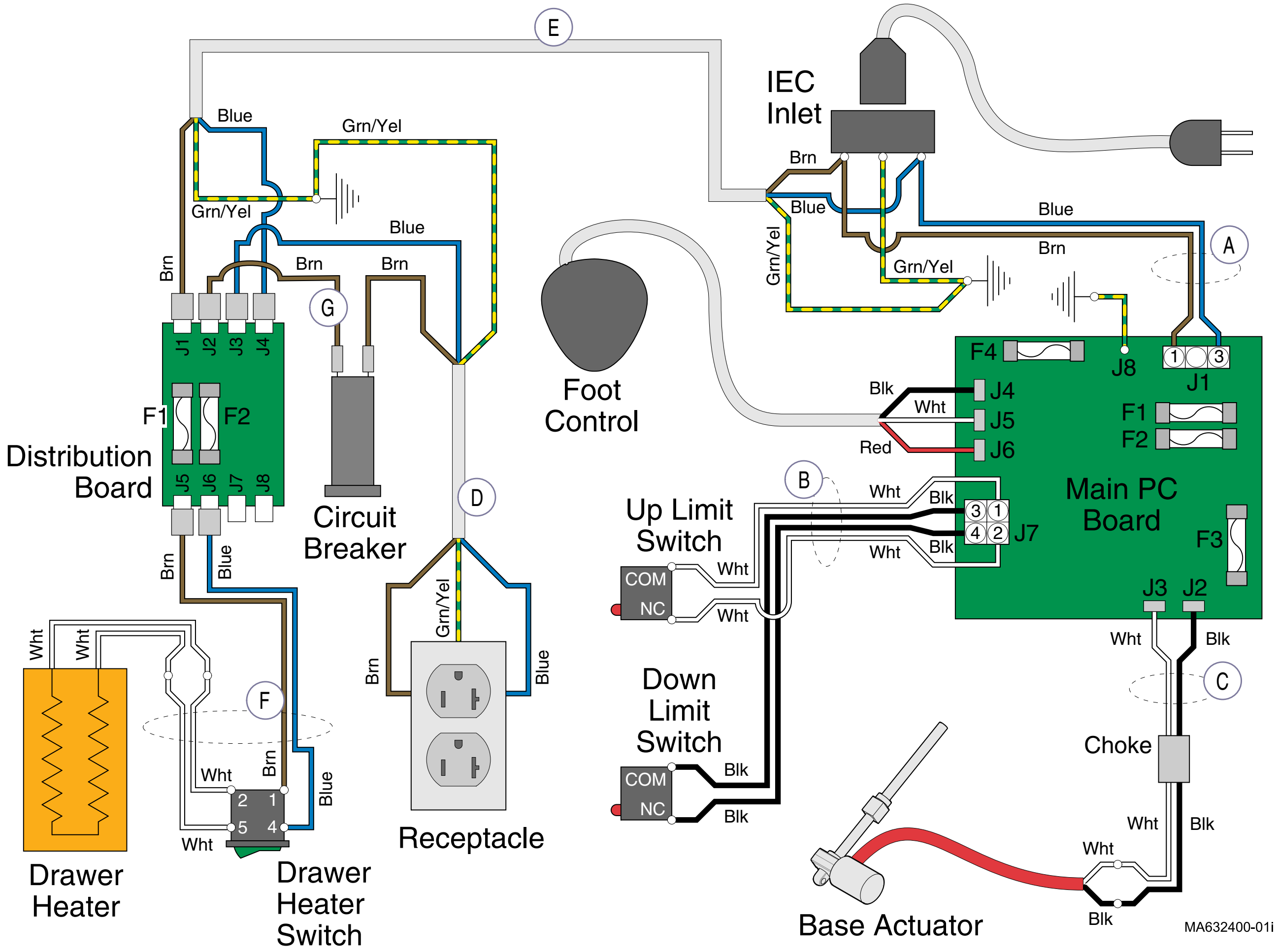
Refer To: **Go To Page:**
Fuses E-25


E
IEC Inlet
Brn
Blue
Grn/Yel
Blue
Brn
Grn/Yel
A
Blue
Grn/Yel
Grn/Yel
Blue
Brn
Brn
Brn
G
J1
J2
J3
J4
F1
F2
Distribution Board
J5
J6
J7
J8
Brn
Blue
Circuit Breaker
Foot Control
Blk
Wht
Red
J4
J5
J6
F4
J8
1
3
J1
F1
F2
Main PC Board
F3
B
Wht
Blk
Wht
Blk
3
1
4
2
J7
Up Limit Switch
COM
NC
Wht
Wht
Down Limit Switch
COM
NC
Blk
Blk
D
Grn/Yel
Brn
Blue
Receptacle
J3
J2
Wht
Blk
C
Choke
Wht
Blk
Wht
Blk
Base Actuator
MA632400-01i
Wht
Wht
F
Wht
Brn
Blue
2
1
5
4
Wht
Drawer Heater
Drawer Heater Switch

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1579-00** *(includes Item B)*
B	Base Up/Down Limit Switches	Main PC Board	**015-1579-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Receptacle	Circuit Breaker	**015-1595-00**
E	Distribution Board	IEC Inlet	**015-1594-00**
F	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**
G	Circuit Breaker	Distribution Board	**015-0708-30**

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Wiring Diagrams

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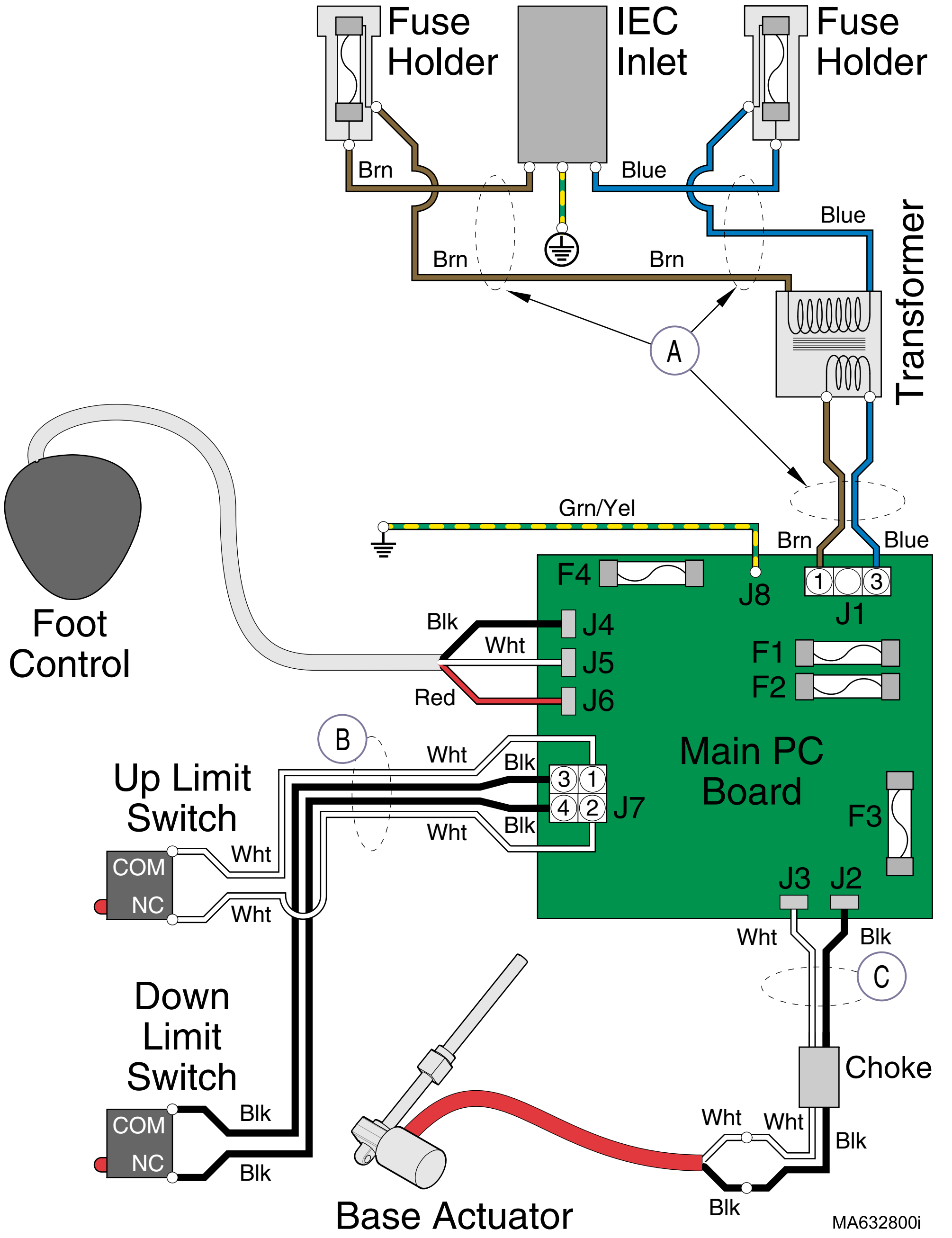
Fuses E-25


Fuse Holder
IEC Inlet
Fuse Holder
Brn
Blue
Brn
Brn
Blue
Transformer
A
Foot Control
Grn/Yel
Brn
Blue
F4
J8
1
3
J1
Blk
J4
Wht
J5
F1
F2
Red
J6
B
Wht
Blk
3
1
4
2
J7
Main PC Board
Up Limit Switch
Wht
Blk
F3
COM
Wht
NC
Wht
J3
J2
Wht
Blk
C
Down Limit Switch
Choke
COM
Blk
Wht
Wht
Blk
NC
Blk
Base Actuator
Blk
MA632800i

Wire Harness	From:	To:	Part Number
A	IEC Inlet / Fuse Holders / Transformer	Main PC Board	**015-1580-00** *(includes Item B)*
B	Base Up/Down Limit Switches	Main PC Board	**015-1580-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*

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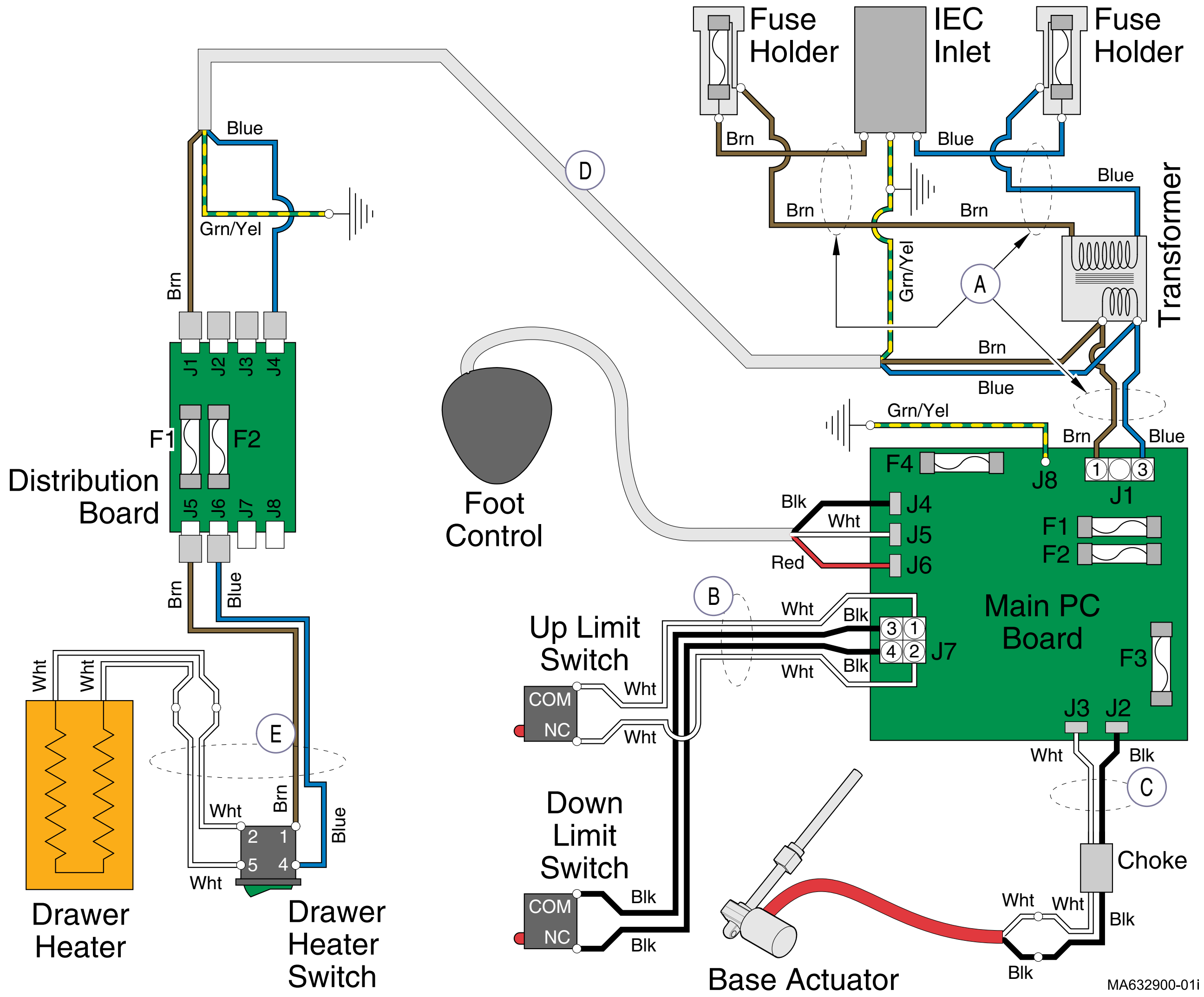
Refer To: **Go To Page:**
Fuses E-25


Fuse Holder
IEC Inlet
Fuse Holder
Brn
Blue
Brn
Brn
Blue
Grn/Yel
Transformer
A
D
Blue
Grn/Yel
Brn
Brn
Blue
Grn/Yel
Brn
Blue
J1
J2
J3
J4
F1
F2
J5
J6
J7
J8
Distribution Board
Foot Control
Brn
Blue
Wht
Wht
E
Wht
Brn
Blue
2
1
5
4
Wht
Drawer Heater
Drawer Heater Switch
F4
J8
1
3
J1
Blk
J4
Wht
J5
Red
J6
F1
F2
B
Wht
Blk
3
1
4
2
J7
Wht
Blk
Main PC Board
F3
Up Limit Switch
COM
Wht
NC
Wht
J3
J2
Wht
Blk
C
Choke
Down Limit Switch
COM
Blk
NC
Blk
Base Actuator
Wht
Wht
Blk
Blk
MA632900-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet / Fuse Holders / Transformer	Main PC Board	**015-1580-00** *(includes Item B)*
B	Base Up/Down Limit Switches	Main PC Board	**015-1580-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Distribution Board	Transformer	**015-1594-00**
E	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**

Models: ***222*** *(-010)*
Serial Numbers: all

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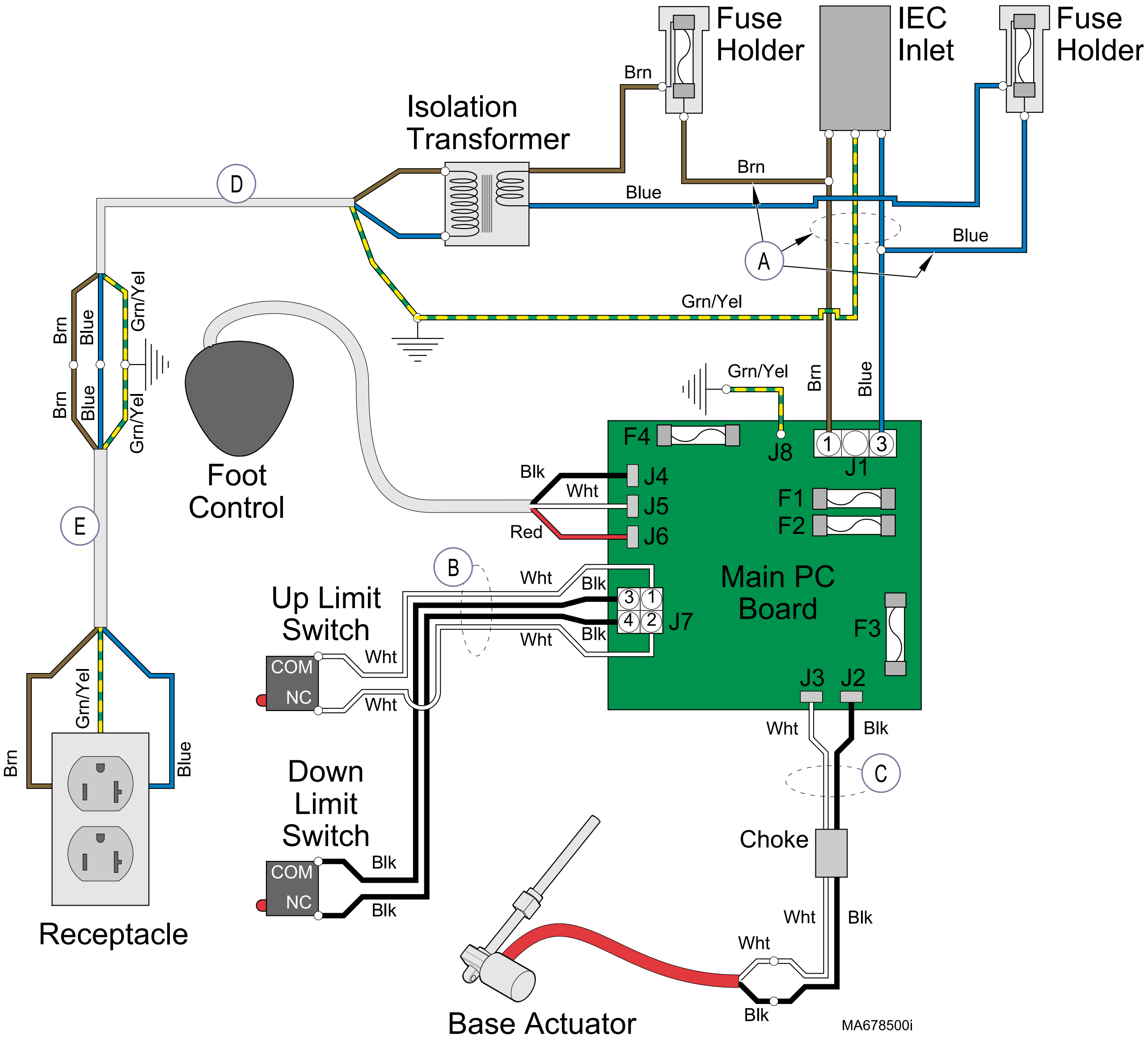
Wiring Diagrams

Refer To: Go To Page:
Fuses E-25

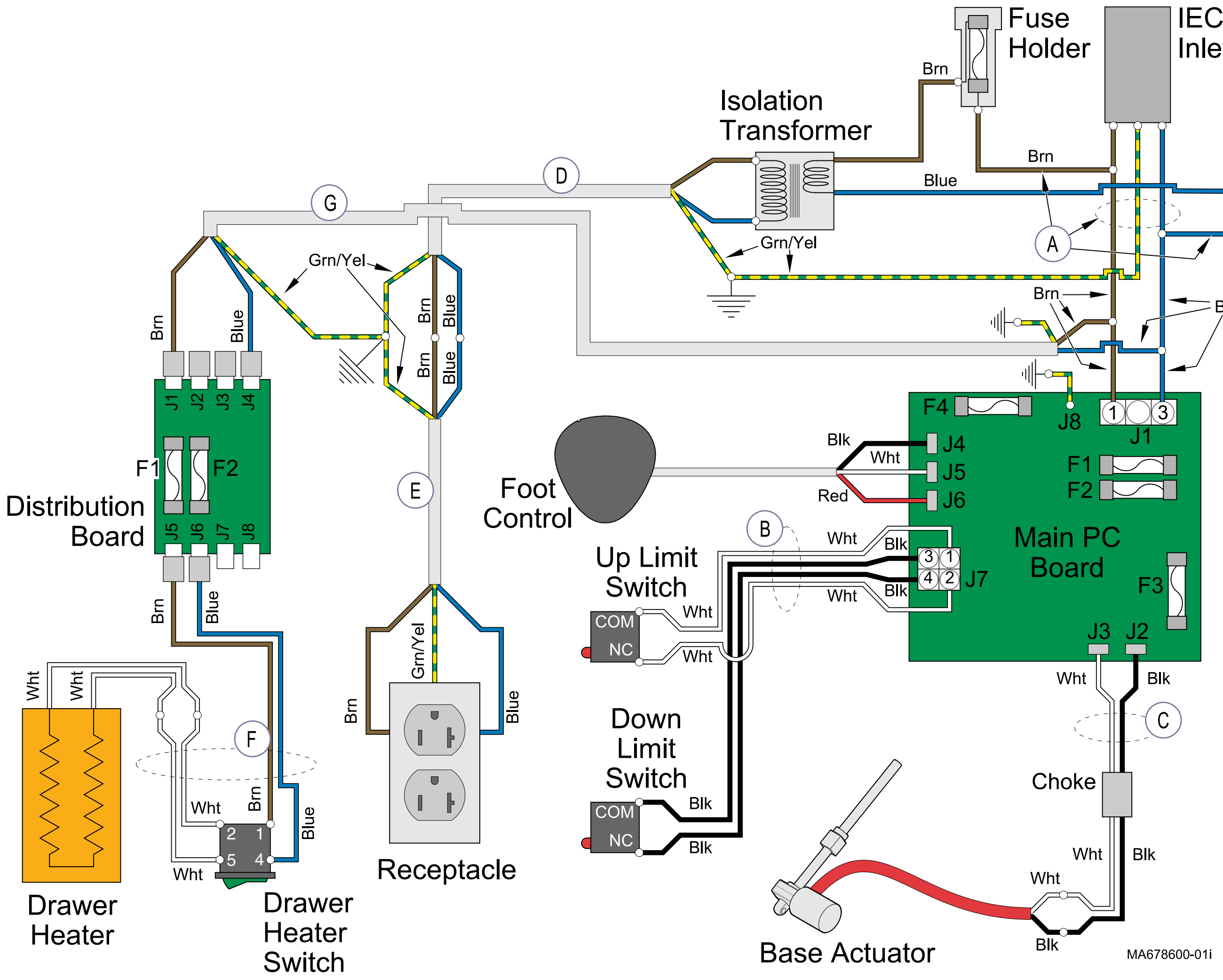

Fuse Holder
IEC Inlet
Fuse Holder
Brn
Isolation Transformer
D
Brn
Blue
Blue
A
Grn/Yel
Brn
Blue
Grn/Yel
Brn
Blue
Grn/Yel
Grn/Yel
Brn
Blue
Foot Control
F4
J8
1
3
J1
Blk
J4
Wht
J5
Red
J6
F1
F2
E
B
Main PC Board
Wht
Blk
3
1
4
2
J7
Blk
Wht
F3
Up Limit Switch
COM
NC
Wht
Wht
J3
J2
Wht
Blk
C
Grn/Yel
Brn
Blue
Receptacle
Down Limit Switch
Blk
COM
NC
Blk
Choke
Wht
Blk
Wht
Base Actuator
Blk
MA678500i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1852-00** *(includes Item B)*
B	Base Up/Down Limit Switches	Main PC Board	**015-1852-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Isolation Transformer	Item E	**015-1845-00**
E	Receptacle	Item D	**015-1595-00**

Wiring Diagrams

Refer To: Go To Page:

Fuses E-25


Fuse Holder
IEC Inlet
Fuse Holder
Isolation Transformer
Brn
Blue
Grn/Yel
A
D
G
Brn
Blue
J1 J2 J3 J4
F1 F2
J5 J6 J7 J8
Distribution Board
E
Foot Control
F4
J8
1 3
J1
J4
J5
J6
Blk
Wht
Red
F1
F2
Main PC Board
B
Up Limit Switch
COM
NC
Wht
Blk
3 1
4 2
J7
F3
J3 J2
Down Limit Switch
Wht
Blk
C
Choke
Base Actuator
Drawer Heater
Drawer Heater Switch
2 1
5 4
F
Receptacle
MA678600-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1852-00** *(includes Item B)*
B	Base Up/Down Limit Switches	Main PC Board	**015-1852-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Isolation Transformer	Item E	**015-1845-00**
E	Receptacle	Item D	**015-1595-00**
F	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**
G	Distribution Board	Item A	**015-1594-00**

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Wiring Diagrams

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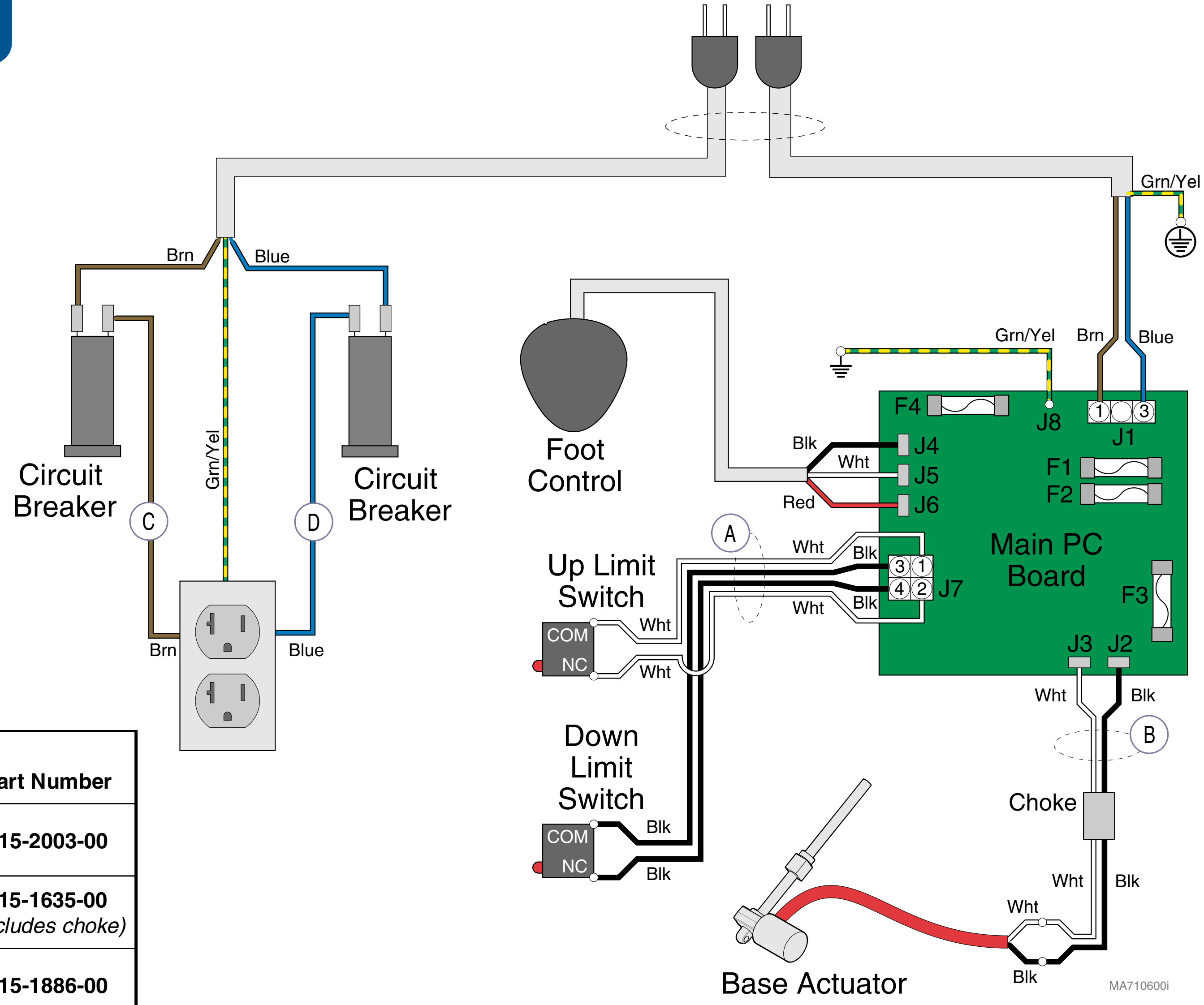
Fuses E-25


Grn/Yel
Brn
Blue
Grn/Yel
Circuit Breaker
C
Circuit Breaker
D
Brn
Blue
Foot Control
Grn/Yel
Brn
Blue
F4
J8
1
3
J1
Blk
J4
Wht
J5
Red
J6
F1
F2
A
Wht
Blk
Up Limit Switch
3
1
4
2
J7
Main PC Board
Blk
Wht
F3
COM
NC
Wht
Wht
J3
J2
Wht
Blk
B
Down Limit Switch
Choke
COM
NC
Blk
Blk
Wht
Blk
Wht
Blk
Base Actuator
MA710600i

Wire Harness	From:	To:	Part Number
A	BaseUp / Down Limit Switches	Main PC Board	**015-2003-00**
B	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
C	Circuit Breaker *(brown wire)*	Table Receptacle	**015-1886-00**
D	Circuit Breaker *(blue wire)*	Table Receptacle	**015-1886-01**

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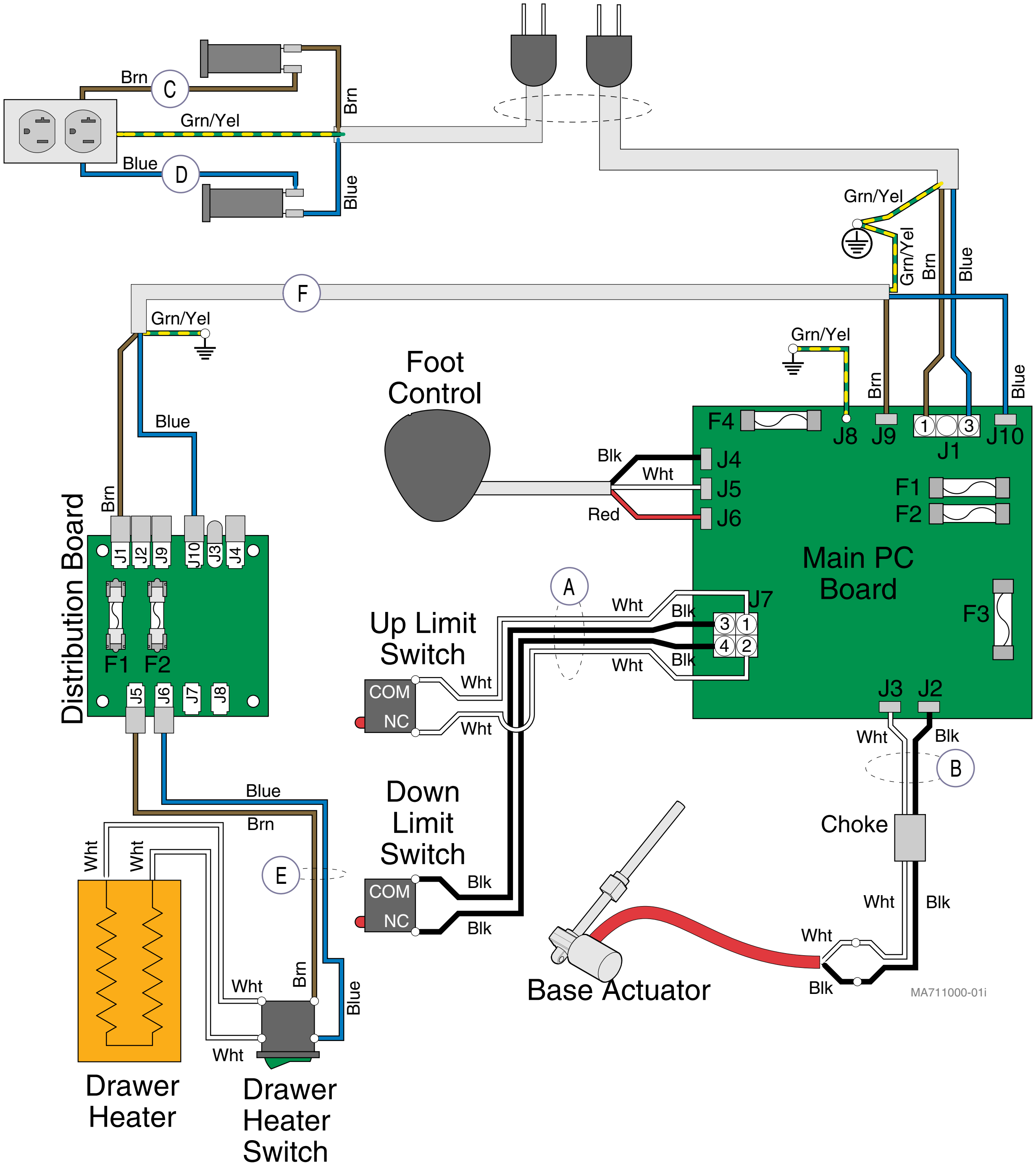
Refer To: Go To Page:
Fuses E-25


Brn
C
Grn/Yel
Blue
D
Brn
Blue
Grn/Yel
Grn/Yel
Brn
Blue
F
Grn/Yel
Blue
Brn
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Foot Control
Grn/Yel
Brn
Blue
F4
J8
J9
1
3
J1
J10
Blk
Wht
Red
J4
J5
J6
F1
F2
Main PC Board
A
Wht
Blk
J7
3
1
4
2
Wht
Blk
F3
Up Limit Switch
COM
NC
Wht
Wht
J3
J2
Wht
Blk
B
Choke
Wht
Blk
Blue
Brn
Wht
Wht
E
Down Limit Switch
COM
NC
Blk
Blk
Wht
Brn
Blue
Wht
Wht
Blk
Base Actuator
MA711000-01i
Drawer Heater
Drawer Heater Switch

Wire Harness	From:	To:	Part Number
A	BaseUp / Down Limit Switches	Main PC Board	**015-2003-00**
B	Base Actuator Wires	Main PC Board	**015-1635-00** *(incl. choke)*
C	Circuit Breaker *(brown wire)*	Table Receptacle	**015-1886-00**
D	Circuit Breaker *(blue wire)*	Table Receptacle	**015-1886-01**
E	Heater Switch with Harness	Distribution Board	**015-3326-00**
F	Distribution Board	Main PC Board	**015-2005-00**

Models: *222 (-016)*
Serial Numbers: all

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Wiring Diagrams

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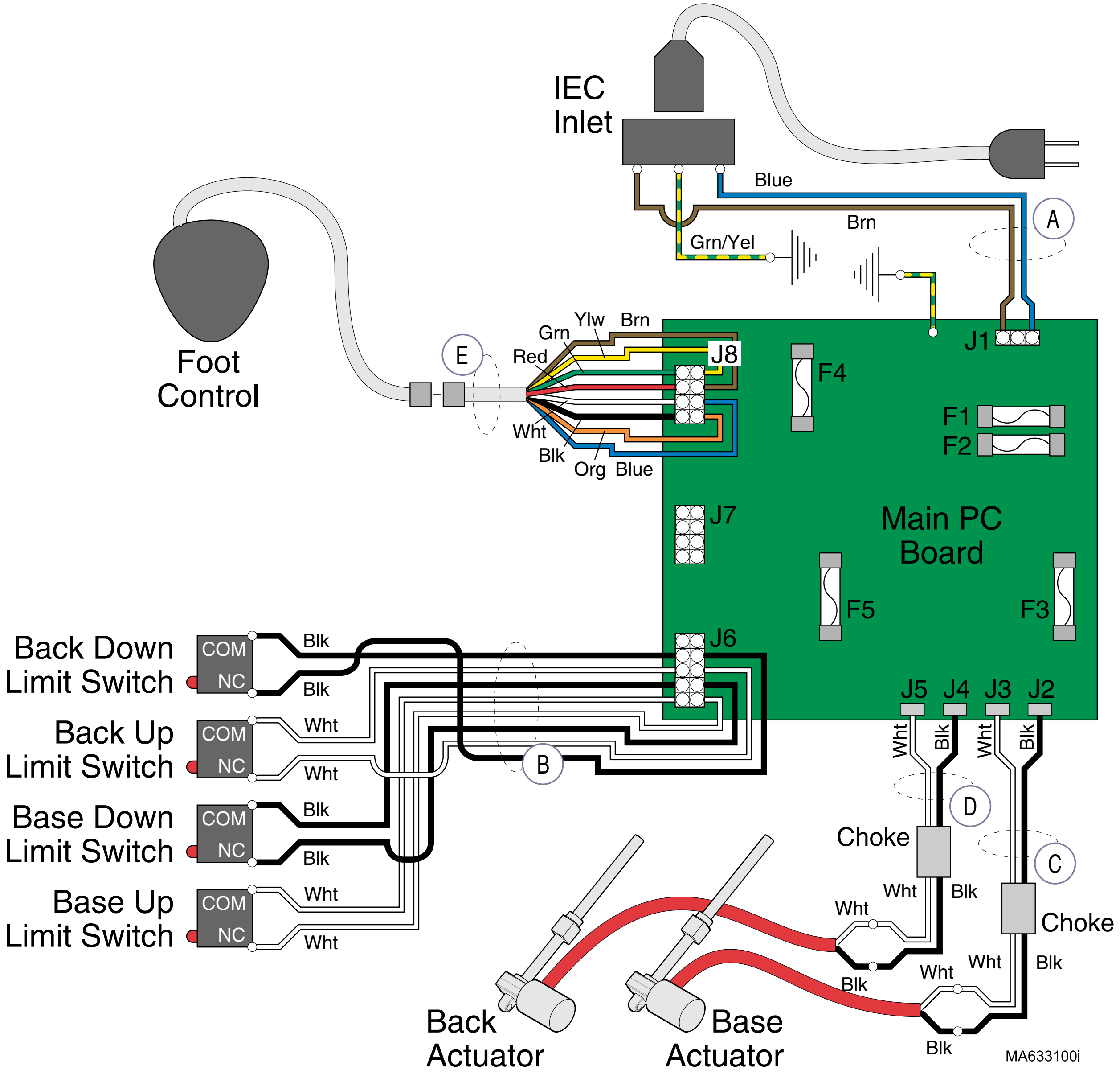
Fuses E-25


IEC
Inlet
Blue
Brn
Grn/Yel
A
Foot
Control
E
Grn
Ylw
Brn
Red
J8
Wht
Blk
Org
Blue
F4
J1
F1
F2
J7
Main PC
Board
F5
F3
J6
Back Down
Limit Switch
COM
NC
Blk
Blk
Back Up
Limit Switch
COM
NC
Wht
Wht
Base Down
Limit Switch
COM
NC
Blk
Blk
Base Up
Limit Switch
COM
NC
Wht
Wht
B
J5
J4
J3
J2
Wht
Blk
Wht
Blk
D
Choke
C
Wht
Blk
Wht
Choke
Wht
Wht
Blk
Blk
Back
Actuator
Base
Actuator
Blk
MA633100i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1744-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1744-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**

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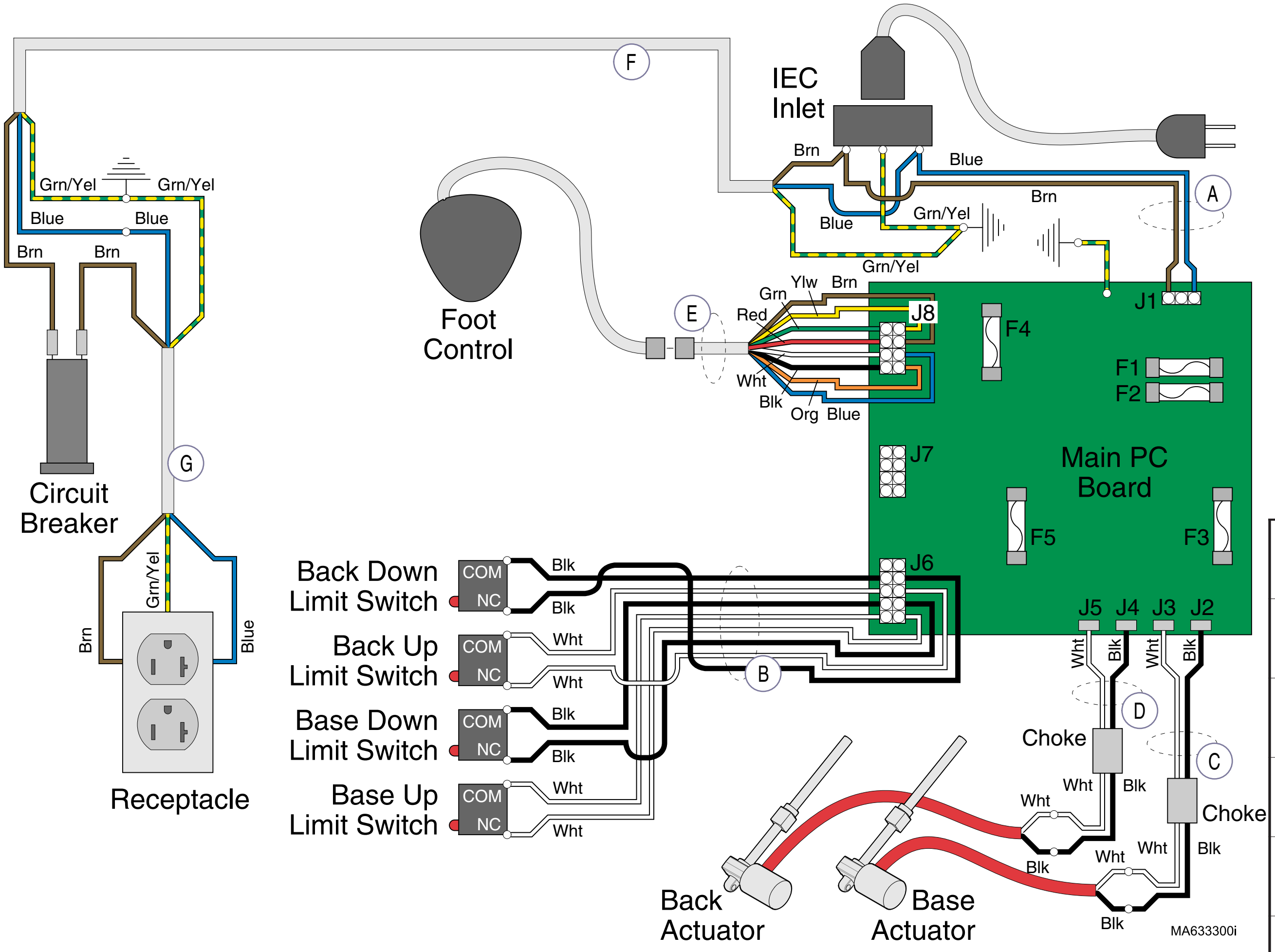
F
IEC Inlet
Brn
Blue
Brn
Grn/Yel
Blue
Grn/Yel
A
Grn/Yel
Grn/Yel
Blue
Blue
Brn
Brn
Foot Control
E
Grn
Ylw
Brn
Red
J8
Wht
Blk
Org
Blue
J1
F4
F1
F2
J7
Main PC Board
F5
F3
J6
J5
J4
J3
J2
Circuit Breaker
G
Grn/Yel
Brn
Blue
Receptacle
Back Down Limit Switch
COM
NC
Blk
Blk
Back Up Limit Switch
COM
NC
Wht
Wht
Base Down Limit Switch
COM
NC
Blk
Blk
Base Up Limit Switch
COM
NC
Wht
Wht
B
Wht
Blk
Wht
Blk
D
Choke
C
Wht
Blk
Choke
Wht
Blk
Wht
Wht
Blk
Blk
Blk
Back Actuator
Base Actuator
MA633300i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1744-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1744-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Circuit Breaker	IEC Inlet	**015-1594-30**
G	Receptacle	Circuit Breaker	**015-1595-00**

Wiring Diagrams

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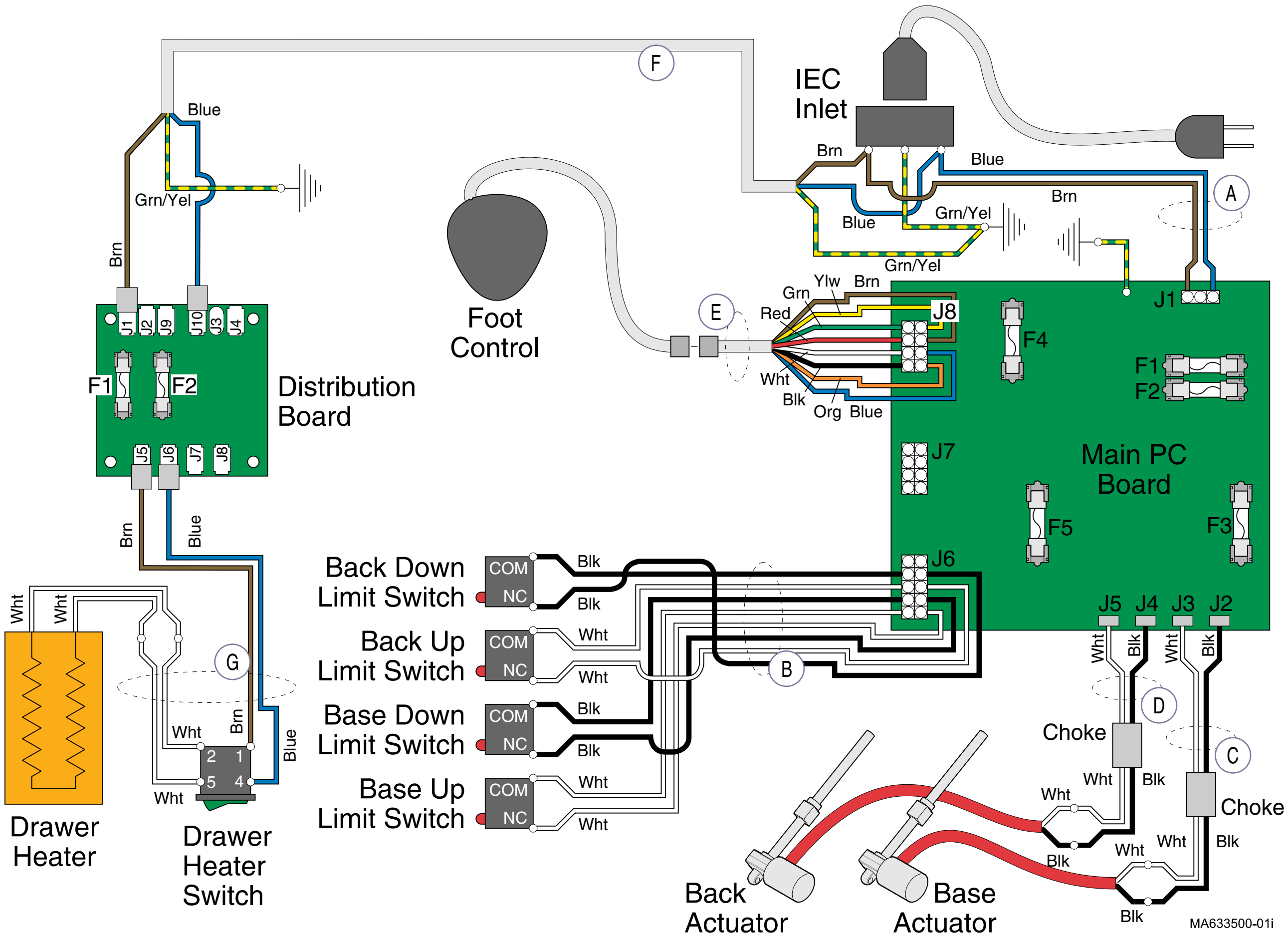
Fuses E-25


F
IEC Inlet
Blue
Grn/Yel
Brn
Brn
Blue
Blue
Brn
Grn/Yel
A
Grn/Yel
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Distribution Board
Foot Control
E
Grn
Ylw
Brn
Red
J8
Wht
Blk
Org
Blue
F4
J1
F1
F2
J7
Main PC Board
F5
F3
J6
Brn
Blue
Wht
Wht
G
Wht
Brn
Blue
2
1
5
4
Wht
Drawer Heater
Drawer Heater Switch
Back Down Limit Switch
COM
NC
Blk
Blk
Back Up Limit Switch
COM
NC
Wht
Wht
Base Down Limit Switch
COM
NC
Blk
Blk
Base Up Limit Switch
COM
NC
Wht
Wht
B
J5
J4
J3
J2
Wht
Blk
Wht
Blk
D
Choke
C
Choke
Wht
Blk
Wht
Wht
Blk
Blk
Wht
Blk
Blk
Back Actuator
Base Actuator
MA633500-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1744-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1744-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Distribution Board	IEC Inlet	**015-1594-00**
G	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**

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Wiring Diagrams

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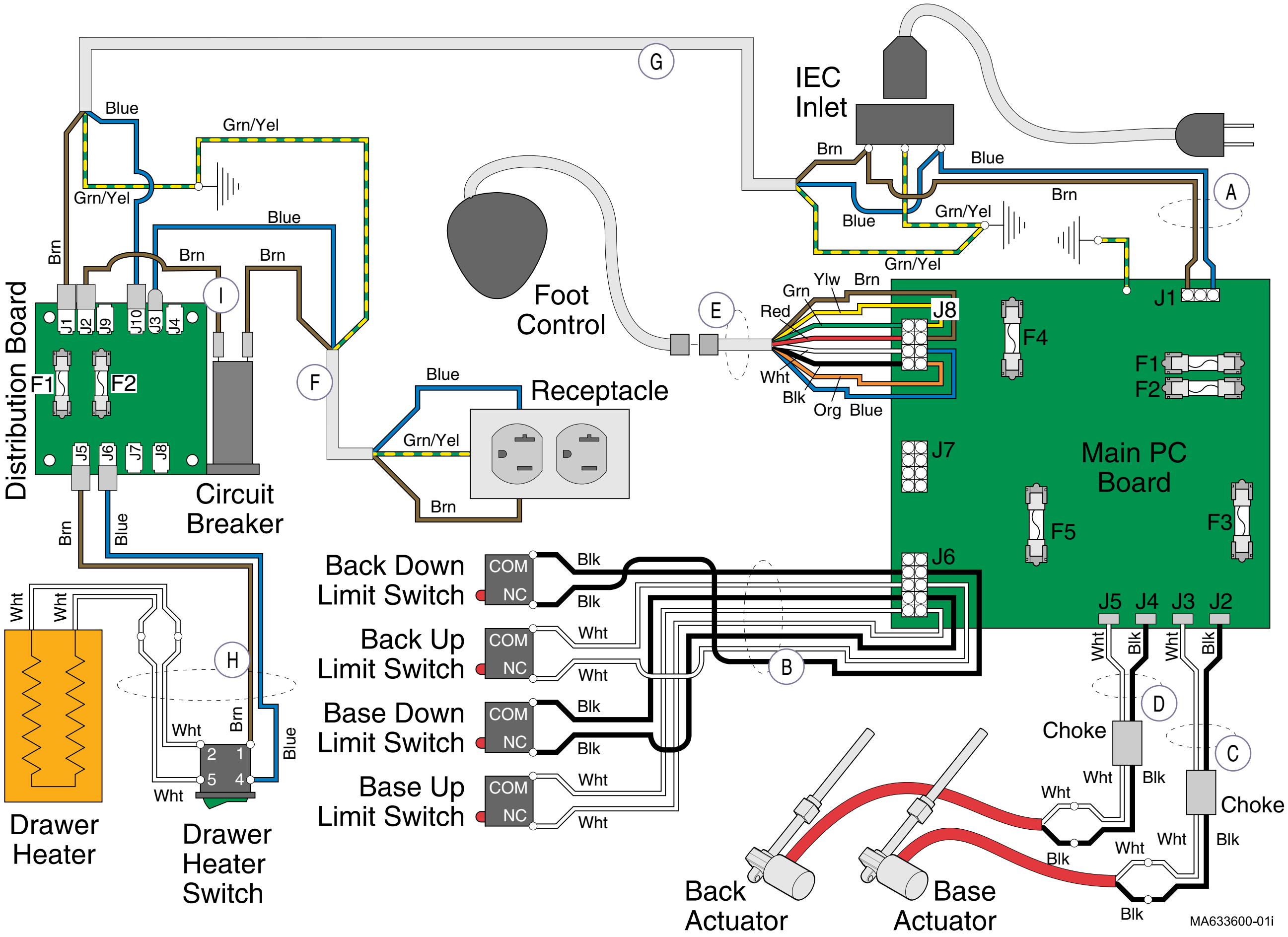
G
IEC Inlet
Brn
Blue
Brn
A
Blue
Grn/Yel
Grn/Yel
Blue
Grn/Yel
Grn/Yel
Brn
Blue
Brn
Brn
I
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Circuit Breaker
F
Foot Control
E
Grn
Ylw
Brn
Red
Wht
Blk
Org
Blue
J8
J1
F4
F1
F2
J7
Main PC Board
F5
F3
J6
J5
J4
J3
J2
Blue
Receptacle
Grn/Yel
Brn
Brn
Blue
Wht
Wht
H
Wht
Brn
Blue
2
1
5
4
Wht
Drawer Heater
Drawer Heater Switch
Back Down Limit Switch
COM
NC
Blk
Blk
Back Up Limit Switch
COM
NC
Wht
Wht
Base Down Limit Switch
COM
NC
Blk
Blk
Base Up Limit Switch
COM
NC
Wht
Wht
B
Wht
Blk
Wht
Blk
D
Choke
Wht
Blk
Wht
C
Choke
Blk
Wht
Wht
Blk
Blk
Back Actuator
Base Actuator
MA633600-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1744-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1744-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Receptacle	Circuit Breaker	**015-1595-00**
G	Distribution Board	IEC Inlet	**015-1594-00**
H	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**
I	Circuit Breaker	Distribution Board	**015-0708-30**

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Wiring Diagrams

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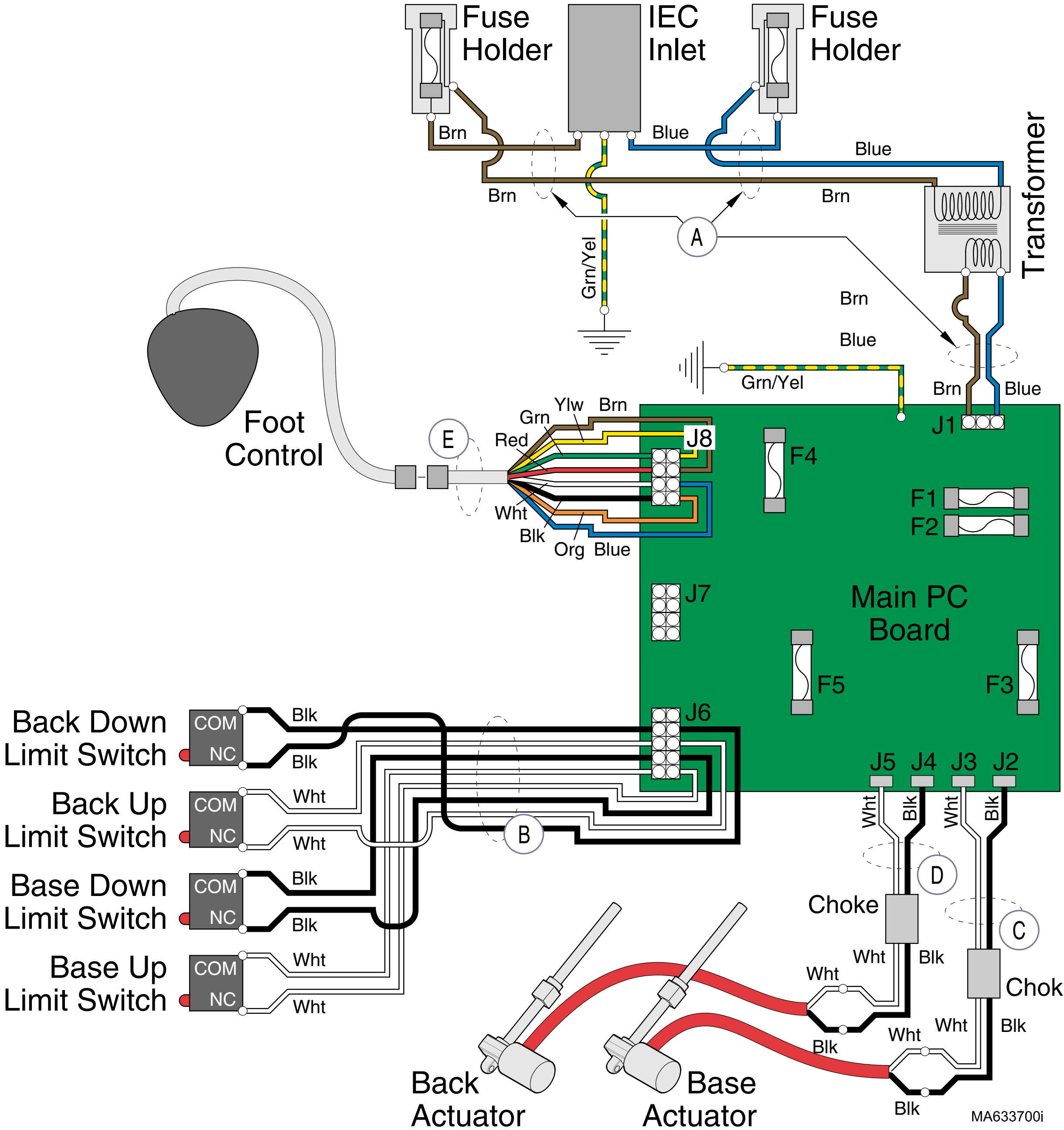
Fuse Holder
IEC Inlet
Fuse Holder
Transformer
Brn
Blue
Brn
Blue
Brn
Brn
Grn/Yel
A
Brn
Blue
Grn/Yel
Brn
Blue
J1
Foot Control
E
Grn
Ylw
Brn
Red
J8
Wht
Blk
Org
Blue
F4
F1
F2
J7
Main PC Board
F5
F3
J6
Back Down Limit Switch
COM
NC
Blk
Blk
Back Up Limit Switch
COM
NC
Wht
Wht
Base Down Limit Switch
COM
NC
Blk
Blk
Base Up Limit Switch
COM
NC
Wht
Wht
B
J5
J4
J3
J2
Wht
Blk
Wht
Blk
D
Choke
C
Wht
Blk
Wht
Choke
Wht
Wht
Blk
Blk
Back Actuator
Base Actuator
Blk
MA633700i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1745-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1745-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**

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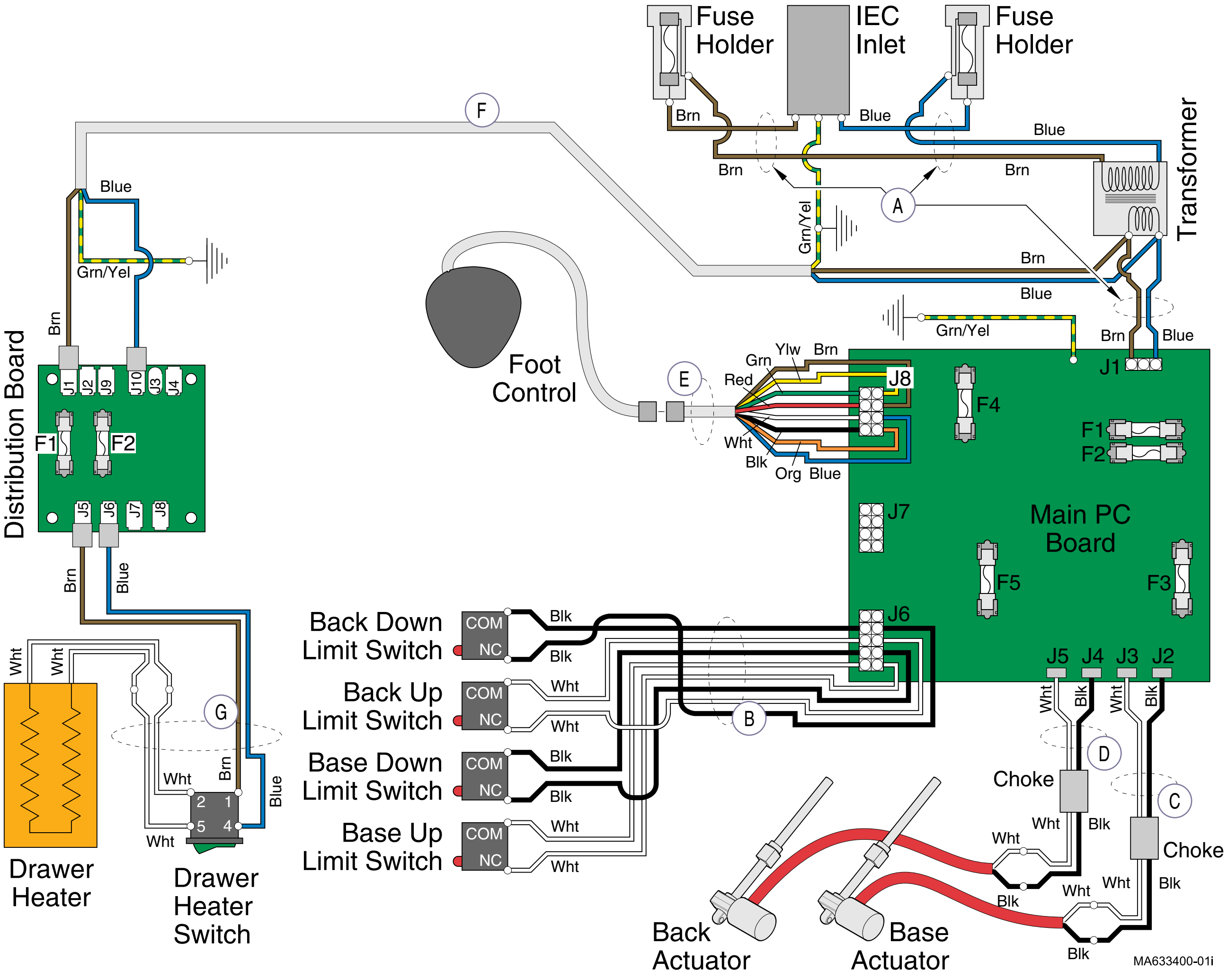
Fuse Holder
IEC Inlet
Fuse Holder
Brn
Blue
Brn
Blue
Brn
Transformer
F
A
Blue
Grn/Yel
Grn/Yel
Brn
Blue
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Brn
Blue
Grn/Yel
Brn
Blue
Foot Control
E
Ylw
Brn
Grn
Red
Wht
Blk
Org
Blue
J8
F4
J1
F1
F2
J7
Main PC Board
F5
F3
J6
J5
J4
J3
J2
Wht
Blk
Wht
Blk
Back Down Limit Switch
COM
NC
Blk
Blk
Back Up Limit Switch
COM
NC
Wht
Wht
Base Down Limit Switch
COM
NC
Blk
Blk
Base Up Limit Switch
COM
NC
Wht
Wht
B
Wht
Wht
G
Wht
Brn
2
1
5
4
Blue
Wht
Drawer Heater
Drawer Heater Switch
Back Actuator
Base Actuator
D
Choke
Wht
Blk
Wht
C
Choke
Wht
Wht
Blk
Blk
Blk
MA633400-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1744-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1744-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Distribution Board	Transformer	**015-1594-00**
G	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**

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Wiring Diagrams

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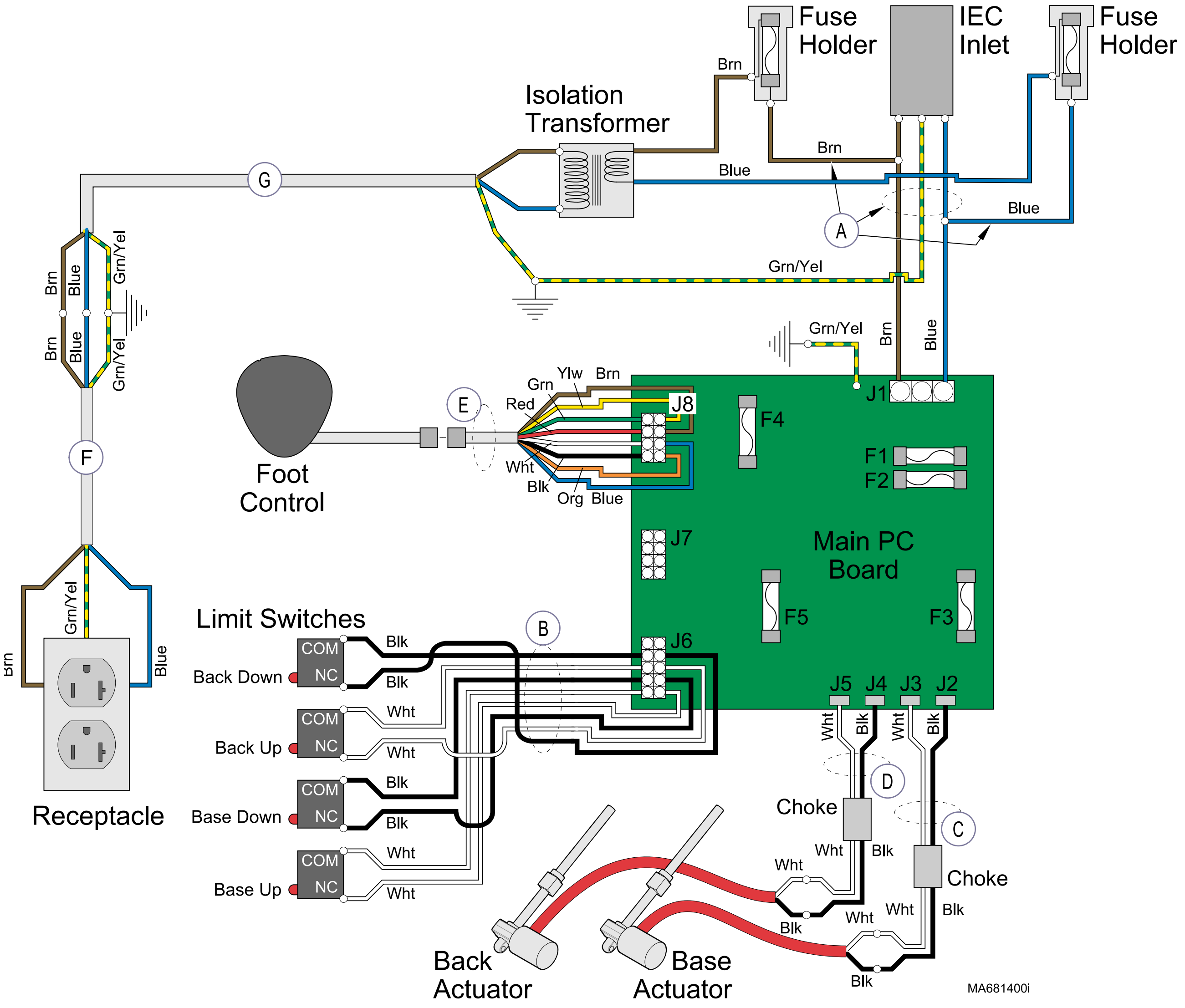
Fuse Holder
IEC Inlet
Fuse Holder
Isolation Transformer
Brn
Brn
Blue
Blue
Grn/Yel
A
G
Brn
Blue
Grn/Yel
Brn
Blue
Grn/Yel
Grn/Yel
Brn
Blue
J1
F4
F1
F2
Foot Control
E
Grn
Ylw
Brn
Red
Wht
Blk
Org
Blue
J8
J7
Main PC Board
F5
F3
J6
J5
J4
J3
J2
F
Brn
Grn/Yel
Blue
Receptacle
Limit Switches
B
COM
NC
Back Down
Blk
Blk
COM
NC
Back Up
Wht
Wht
COM
NC
Base Down
Blk
Blk
COM
NC
Base Up
Wht
Wht
Wht
Blk
Wht
Blk
D
Choke
Wht
Wht
Blk
Blk
C
Choke
Wht
Wht
Blk
Blk
Back Actuator
Base Actuator
MA681400i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1853-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1853-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Receptacle	Item G	**015-1595-00**
G	Isolation Transformer	Item F	**015-1845-00**

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Wiring Diagrams

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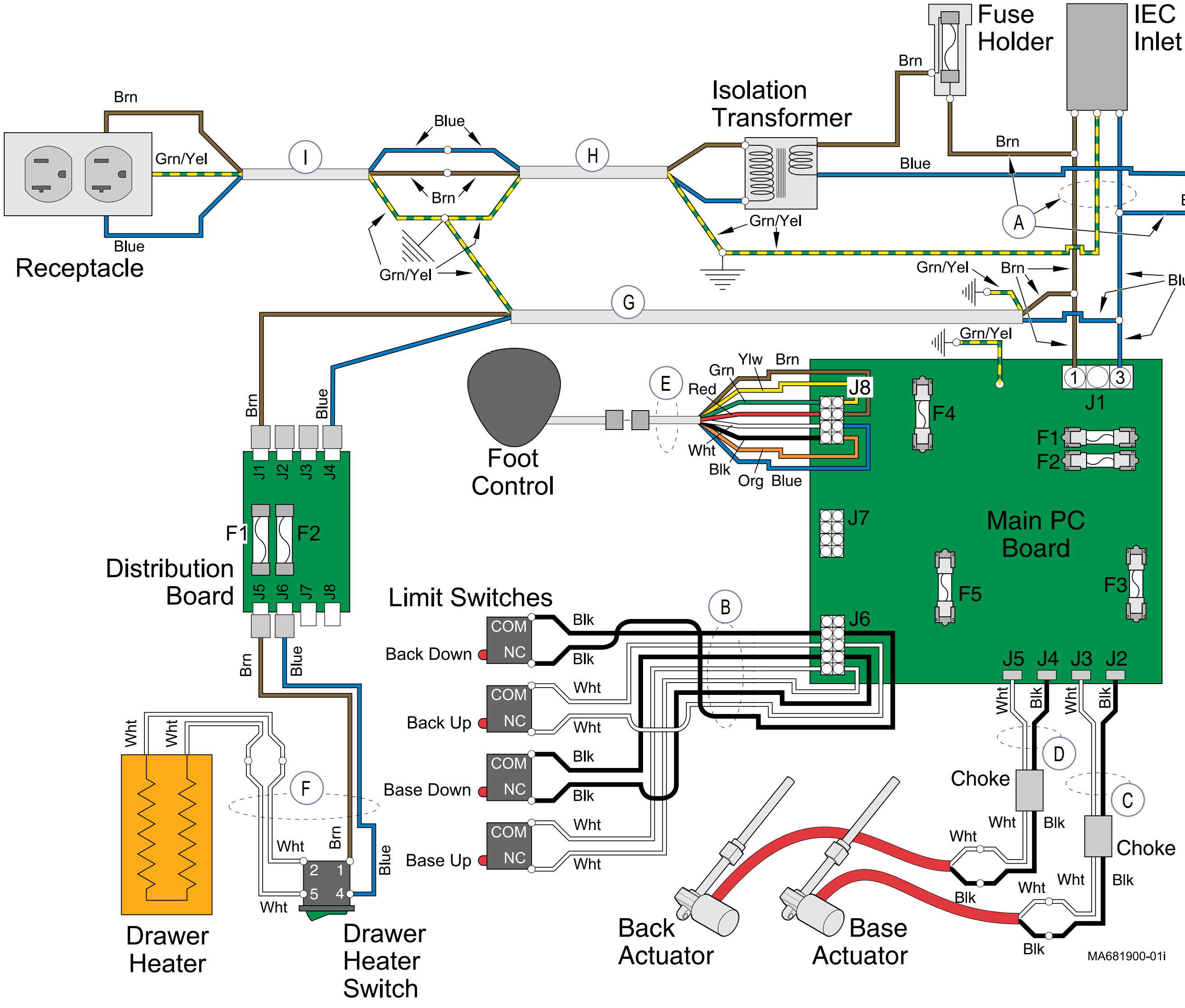
Receptacle
Brn
Grn/Yel
Blue
I
Blue
Brn
Grn/Yel
H
Isolation Transformer
Grn/Yel
Blue
Brn
Fuse Holder
IEC Inlet
Brn
Blue
A
Blue
Grn/Yel
Brn
Blue
G
Grn/Yel
Foot Control
E
Grn
Ylw
Brn
Red
Wht
Blk
Org
Blue
J8
F4
1
3
J1
F1
F2
J7
Main PC Board
F5
F3
J6
J5
J4
J3
J2
Wht
Blk
Wht
Blk
Brn
Blue
J1
J2
J3
J4
F1
F2
Distribution Board
J5
J6
J7
J8
Brn
Blue
Limit Switches
COM
NC
Back Down
Blk
Blk
Back Up
Wht
Wht
Base Down
Blk
Blk
Base Up
Wht
Wht
B
Wht
Wht
Drawer Heater
F
Wht
Brn
Blue
2
1
5
4
Wht
Drawer Heater Switch
Back Actuator
Base Actuator
Choke
D
Wht
Blk
Wht
Blk
Choke
C
Wht
Blk
Wht
Blk
Blk
MA681900-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1853-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1853-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Drawer Heater / Heater Switch	Distribution Board	**015-1629-00**
G	Distribution Board	Item A	**015-1594-00**
H	Isolation Transformer	Item I	**015-1845-00**
I	Receptacle	Item H	**015-1595-00**

Models: *223 (-012 & -014)*
Serial Numbers: all

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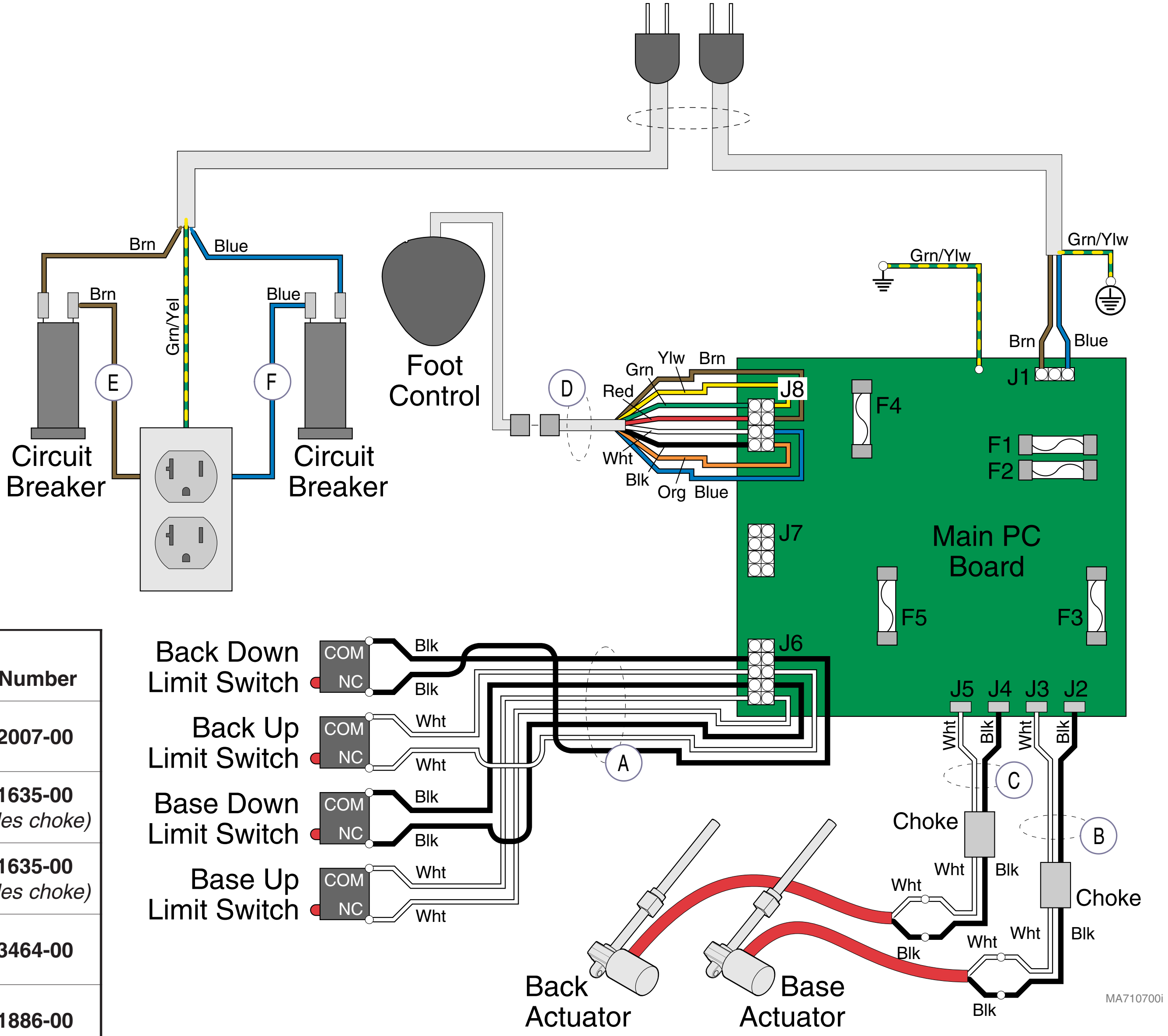
Fuses E-25


Brn
Blue
Brn
Grn/Yel
Blue
E
F
Circuit Breaker
Circuit Breaker
Foot Control
D
Grn
Ylw
Brn
Red
Wht
Blk
Org
Blue
J8
F4
Grn/Ylw
Grn/Ylw
Brn
Blue
J1
F1
F2
J7
Main PC Board
F5
F3
J6
J5
J4
J3
J2
Wht
Blk
Wht
Blk
Back Down Limit Switch
COM
NC
Blk
Blk
Back Up Limit Switch
COM
NC
Wht
Wht
Base Down Limit Switch
COM
NC
Blk
Blk
Base Up Limit Switch
COM
NC
Wht
Wht
A
C
Choke
B
Wht
Blk
Wht
Choke
Wht
Blk
Blk
Wht
Blk
Back Actuator
Base Actuator
MA710700i

Wire Harness	From:	To:	Part Number
A	Base & Back Limit Switches	Main PC Board	**015-2007-00**
B	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
C	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
E	Circuit Breaker *(brown wire)*	Table Receptacle	**015-1886-00**
F	Circuit Breaker *(blue wire)*	Table Receptacle	**015-1886-01**

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Wiring Diagrams

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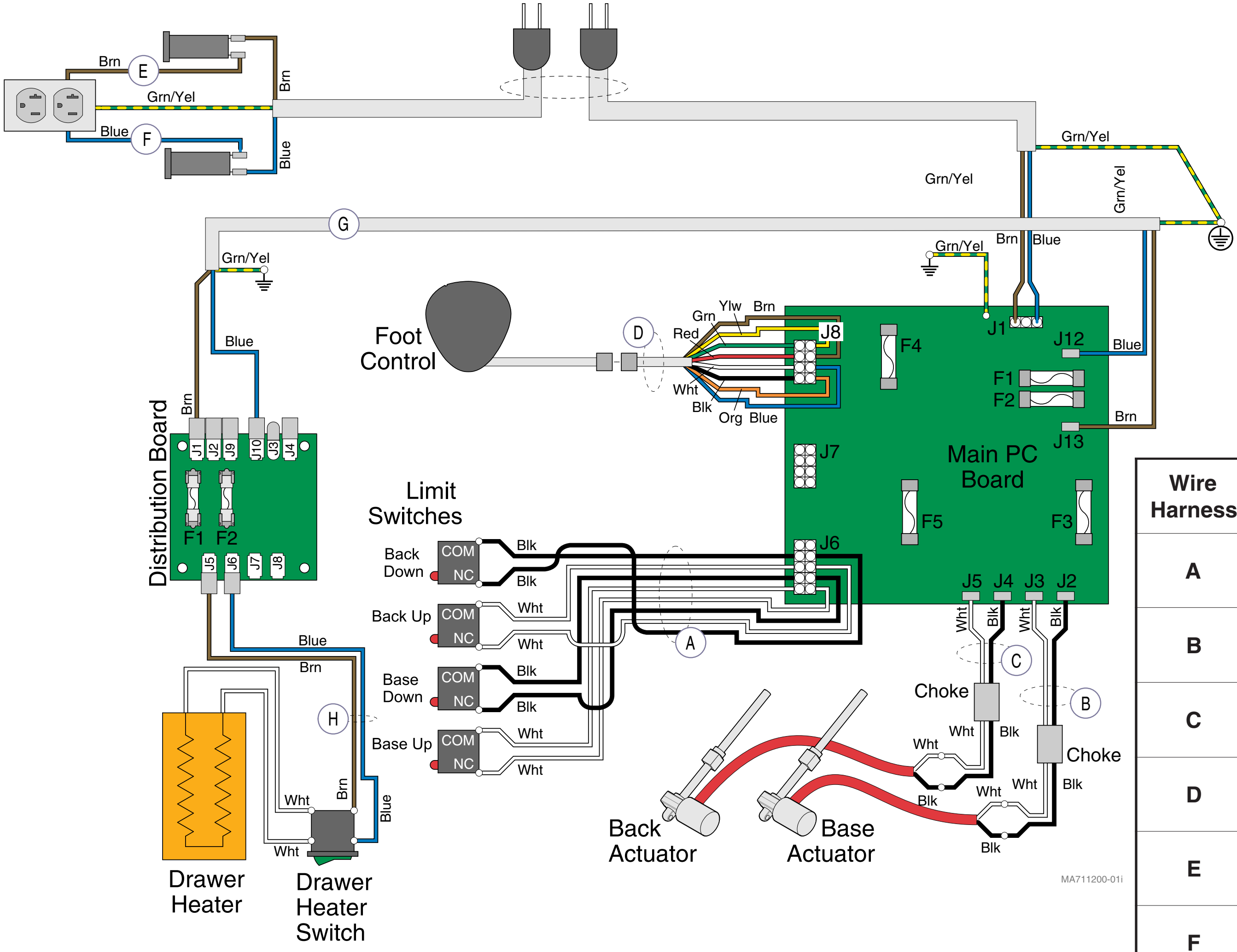
Brn
E
Grn/Yel
Blue
F
Brn
Blue
Grn/Yel
Grn/Yel
Grn/Yel
G
Grn/Yel
Grn/Yel
Brn
Blue
Blue
Foot Control
D
Grn
Ylw
Brn
Red
J8
Wht
Blk
Org
Blue
F4
J1
J12
Blue
F1
F2
Brn
J13
J7
Main PC Board
F5
F3
J6
J5
J4
J3
J2
Distribution Board
Brn
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Limit Switches
Back Down
COM
NC
Blk
Blk
Back Up
COM
NC
Wht
Wht
Base Down
COM
NC
Blk
Blk
Base Up
COM
NC
Wht
Wht
A
Blue
Brn
H
Wht
Brn
Wht
Blue
Drawer Heater
Drawer Heater Switch
Wht
Blk
Wht
Blk
C
Choke
Wht
Blk
Wht
B
Choke
Blk
Wht
Wht
Blk
Blk
Back Actuator
Base Actuator
MA711200-01i

Wire Harness	From:	To:	Part Number
A	Base & Back Limit Switches	Main PC Board	**015-2007-00**
B	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
C	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
E	Circuit Breaker *(brown wire)*	Table Receptacle	**015-1886-00**
F	Circuit Breaker *(blue wire)*	Table Receptacle	**015-1886-01**
G	Distribution Board	Main PC Board	**015-2005-00**
H	Drawer Heater Switch with Harness	Distribution Board	**015-3326-00**

Models: ***223** (-016)*
Serial Numbers: all

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Wiring Diagrams

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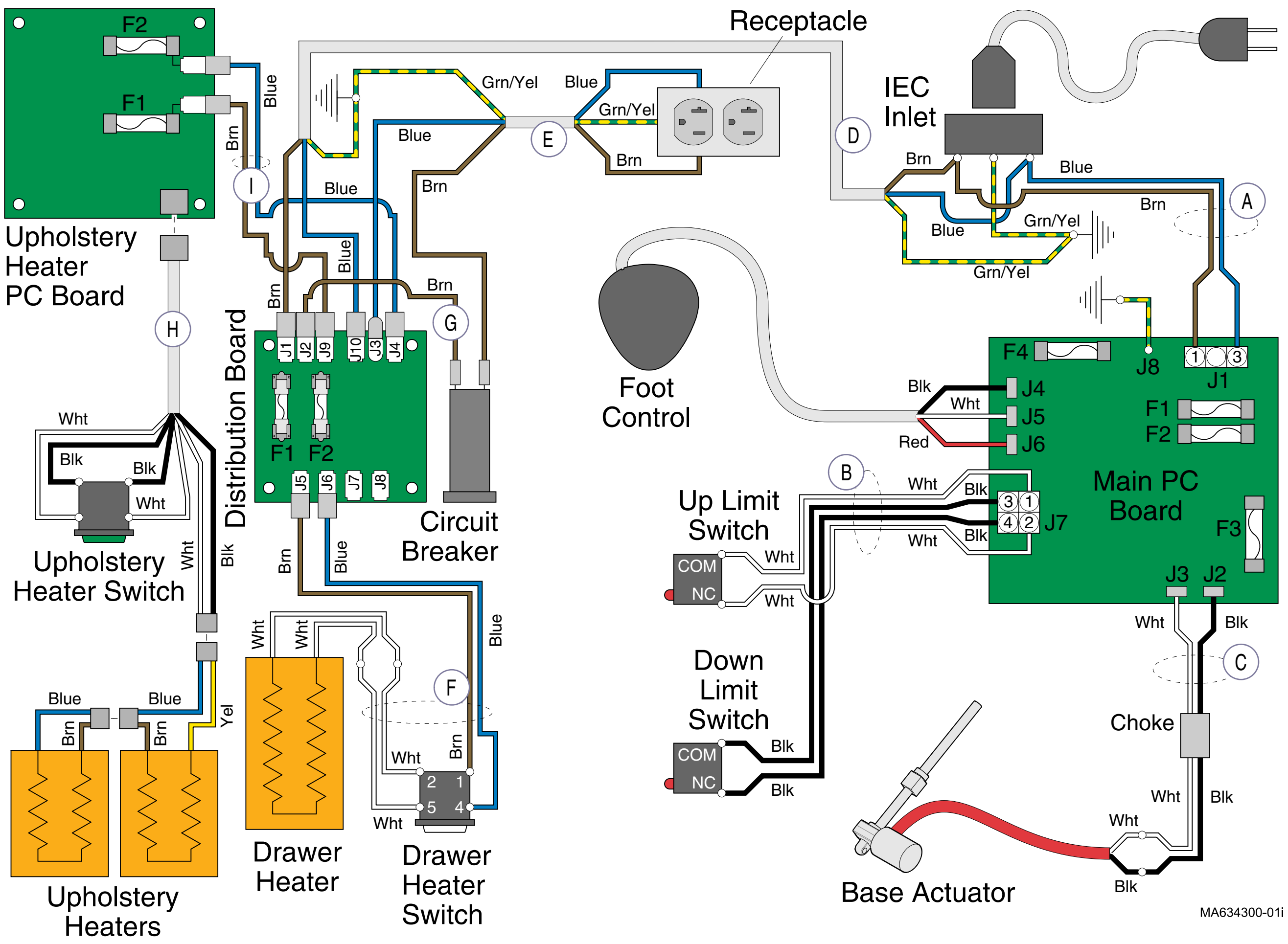
F2
F1
Blue
Brn
I
Upholstery Heater PC Board
H
Wht
Blk
Blk
Wht
Upholstery Heater Switch
Wht
Blk
Yel
Blue
Blue
Brn
Brn
Upholstery Heaters
Grn/Yel
Blue
Blue
Blue
Brn
Brn
Brn
E
Receptacle
Grn/Yel
Brn
G
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Brn
Blue
Circuit Breaker
Blue
Wht
Wht
F
Wht
Brn
2
1
5
4
Wht
Drawer Heater
Drawer Heater Switch
D
IEC Inlet
Brn
Blue
Blue
Grn/Yel
Grn/Yel
Brn
A
Foot Control
Blk
Wht
Red
F4
J8
1
3
J1
J4
J5
J6
F1
F2
Main PC Board
B
Wht
Blk
3
1
4
2
J7
Wht
Blk
F3
Up Limit Switch
COM
NC
Wht
Wht
J3
J2
Wht
Blk
C
Down Limit Switch
COM
NC
Blk
Blk
Choke
Wht
Blk
Wht
Blk
Base Actuator
MA634300-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1579-00** *(includes Item B)*
B	BaseUp / Down Limit Switches	Main PC Board	**015-1579-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Distribution Board	IEC Inlet	**015-1594-00**
E	Receptacle	Dist. Board / Circuit Breaker	**015-1595-00**
F	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**
G	Circuit Breaker	Distribution Board	**015-0708-30**
H	Upholstery Heater Board	Upholstery Heater, On/Off Switch	**015-1722-00**
I	Distribution Board	Upholstery Heater Board	**015-1720-00**

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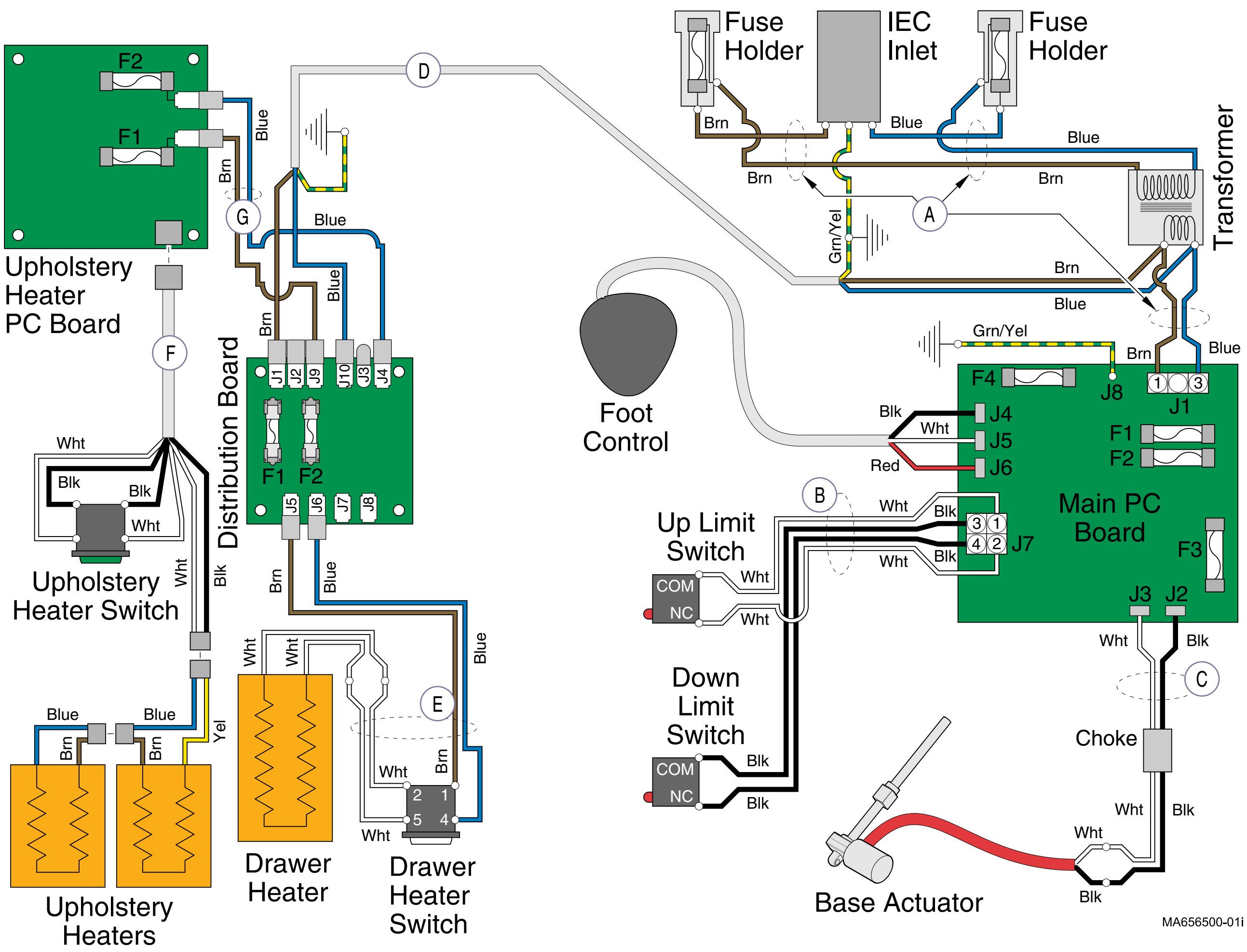
Fuse Holder
IEC Inlet
Fuse Holder
Transformer
D
A
G
F
B
C
E
F2
F1
Upholstery Heater PC Board
Blue
Brn
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Wht
Blk
Blk
Wht
Upholstery Heater Switch
Wht
Blk
Blue
Blue
Brn
Brn
Yel
Upholstery Heaters
Wht
Wht
Drawer Heater
Wht
Brn
2
1
5
4
Wht
Drawer Heater Switch
Blue
Brn
Blue
Brn
Brn
Blue
Blue
Brn
Grn/Yel
Brn
Blue
Brn
Blue
Grn/Yel
Brn
Blue
Foot Control
Blk
Wht
Red
F4
J8
1
3
J1
J4
J5
J6
F1
F2
Main PC Board
Up Limit Switch
Wht
Blk
3
1
4
2
J7
Wht
Blk
F3
COM
NC
Wht
Wht
Down Limit Switch
COM
NC
Blk
Blk
J3
J2
Wht
Blk
Choke
Wht
Blk
Wht
Blk
Base Actuator
MA656500-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1580-00** *(includes Item B)*
B	BaseUp / Down Limit Switches	Main PC Board	**015-1580-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Distribution Board	IEC Inlet	**015-1594-00**
E	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**
F	Upholstery Heater Board	Upholstery Heater, On/Off Switch	**015-1722-00**
G	Distribution Board	Upholstery Heater Board	**015-1720-00**

Models: *622 (-004)*
Serial Numbers: all

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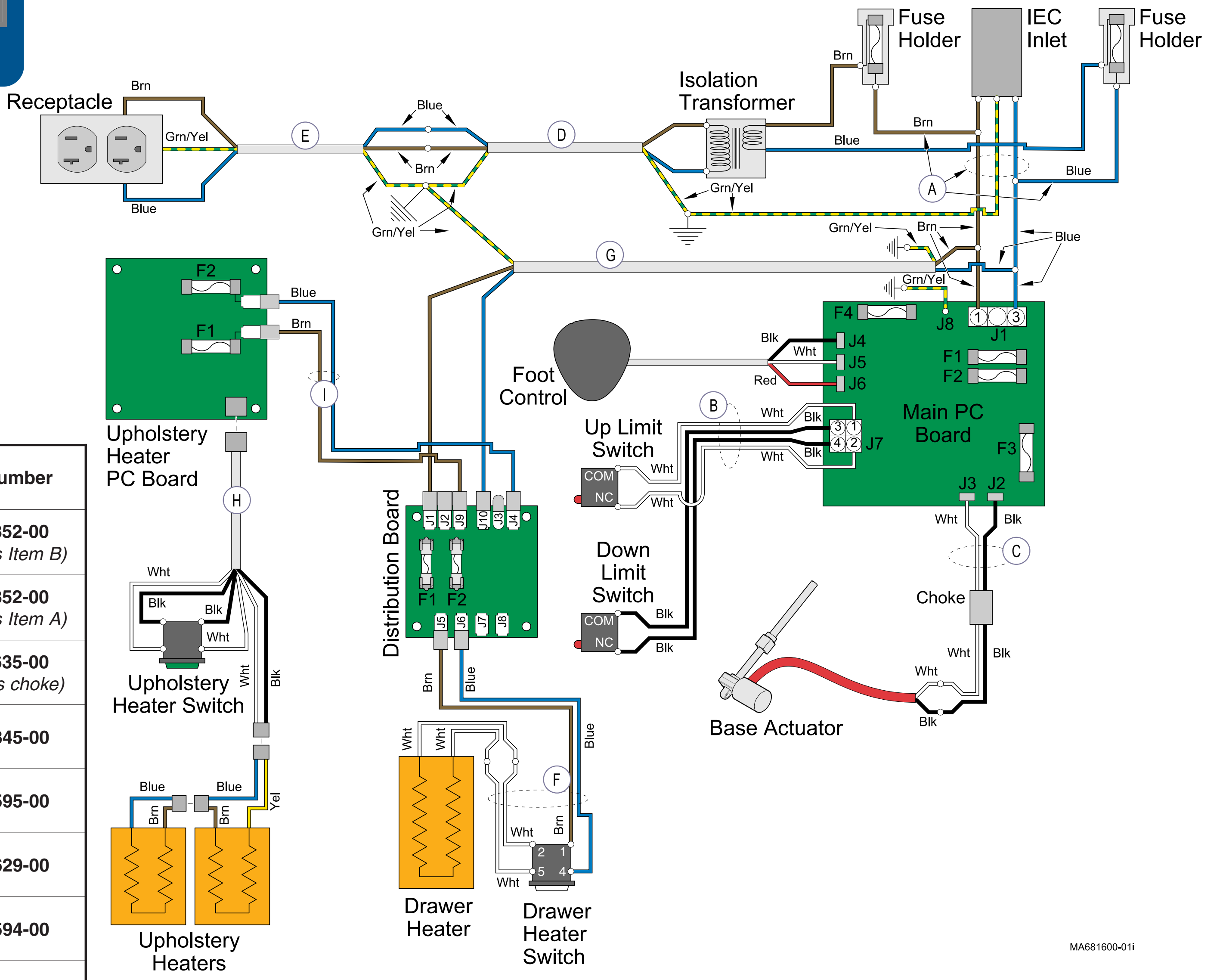
Fuse Holder
IEC Inlet
Fuse Holder
Brn
Isolation Transformer
Receptacle
Brn
Grn/Yel
Blue
E
Blue
Brn
Grn/Yel
D
Brn
Blue
Grn/Yel
A
Blue
Grn/Yel
Brn
Blue
G
Grn/Yel
F2
F1
Blue
Brn
I
Upholstery Heater PC Board
H
Foot Control
Blk
Wht
Red
F4
J8
1
3
J1
J4
J5
J6
F1
F2
Main PC Board
F3
B
Up Limit Switch
Wht
Blk
Wht
Blk
3
1
4
2
J7
COM
NC
Wht
Wht
J3
J2
Wht
Blk
C
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Down Limit Switch
Blk
COM
NC
Blk
Choke
Wht
Blk
Wht
Blk
Base Actuator
Wht
Blk
Blk
Wht
Upholstery Heater Switch
Wht
Blk
Brn
Blue
Blue
Blue
Brn
Brn
Yel
Upholstery Heaters
Wht
Wht
F
Wht
Brn
2
1
5
4
Wht
Drawer Heater
Drawer Heater Switch
MA681600-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1852-00** *(includes Item B)*
B	BaseUp / Down Limit Switches	Main PC Board	**015-1852-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Isolation Transformer	Item E	**015-1845-00**
E	Receptacle	Item D	**015-1595-00**
F	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**
G	Distribution Board	Item A	**015-1594-00**
H	Uph. Heater PC Board	Upholstery Heater Switch	**015-1722-00**
I	Distribution Board	Uph. Heater PC Board	**015-1720-00**

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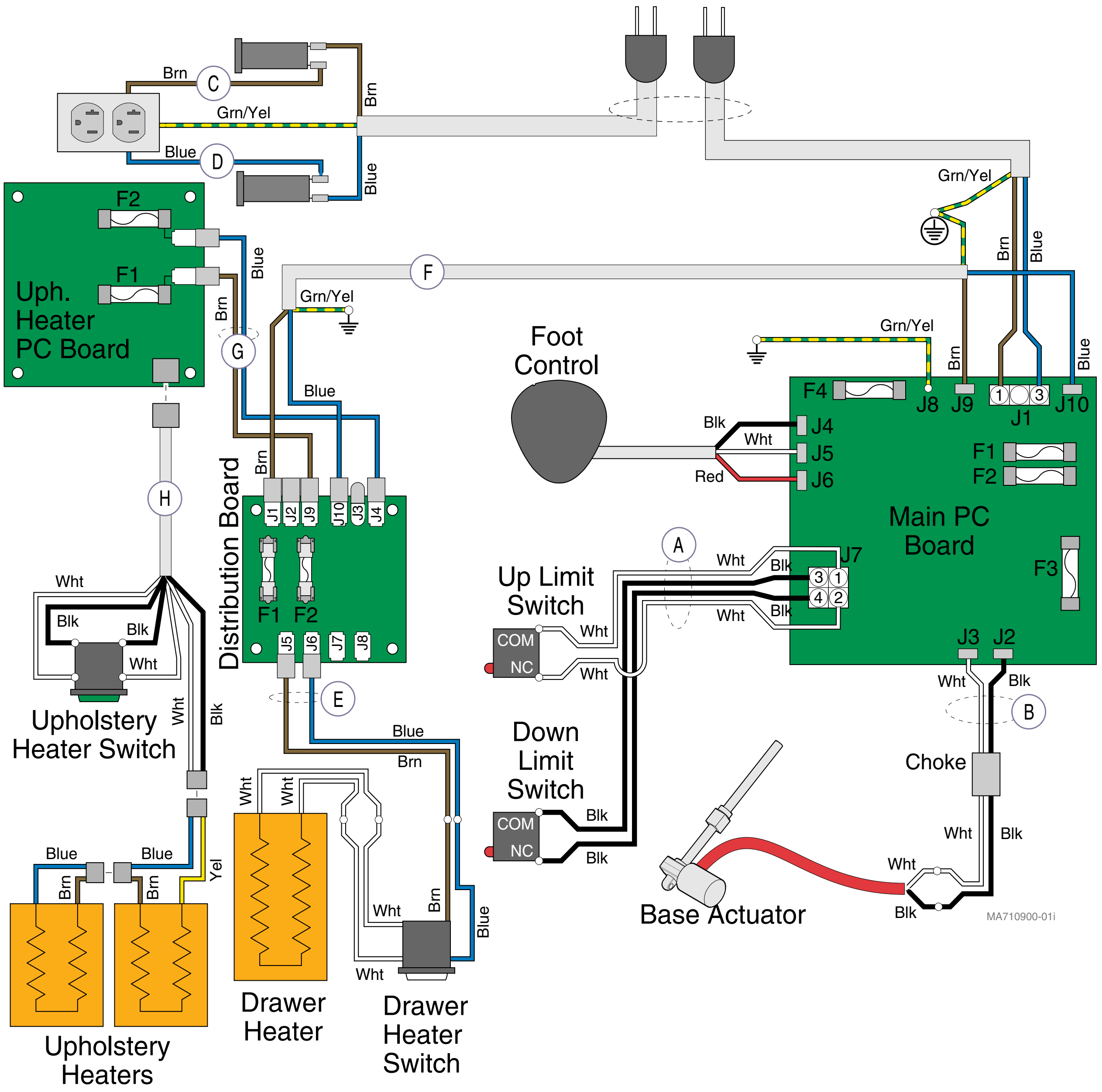
Brn
C
Grn/Yel
Blue
D
Brn
Blue
F2
F1
Uph.
Heater
PC Board
Blue
Brn
G
F
Grn/Yel
Grn/Yel
Brn
Blue
Grn/Yel
Brn
Blue
Foot
Control
F4
J8
J9
J1
J10
Blk
Wht
Red
J4
J5
J6
F1
F2
Main PC
Board
F3
H
Blue
Brn
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Wht
Blk
Blk
Wht
Upholstery
Heater Switch
Wht
Blk
E
Blue
Brn
A
Wht
Blk
J7
Wht
Blk
Up Limit
Switch
COM
NC
Wht
Wht
Down
Limit
Switch
COM
NC
Blk
Blk
J3
J2
Wht
Blk
B
Choke
Wht
Blk
Wht
Blk
Base Actuator
Blue
Blue
Brn
Brn
Yel
Upholstery
Heaters
Wht
Wht
Drawer
Heater
Wht
Brn
Blue
Wht
Drawer
Heater
Switch
MA710900-01i

Wire Harness	From:	To:	Part Number
A	BaseUp / Down Limit Switches	Main PC Board	**015-2003-00**
B	Base Actuator Wires	Main PC Board	**015-1635-00** *(incl. choke)*
C	Circuit Breaker *(brown wire)*	Table Receptacle	**015-1886-00**
D	Circuit Breaker *(blue wire)*	Table Receptacle	**015-1886-01**
E	Drawer Heater Switch with Harness	Distribution Board	**015-1759-00**
F	Distribution Board	Main PC Board	**015-2005-00**
G	Distribution Board	Uph. Heater PC Board	**015-2006-00**
H	Uph. Heater Switch	Uph. Heater PC Board	**015-1722-00**

Models: *622 (-008)*
Serial Numbers: all

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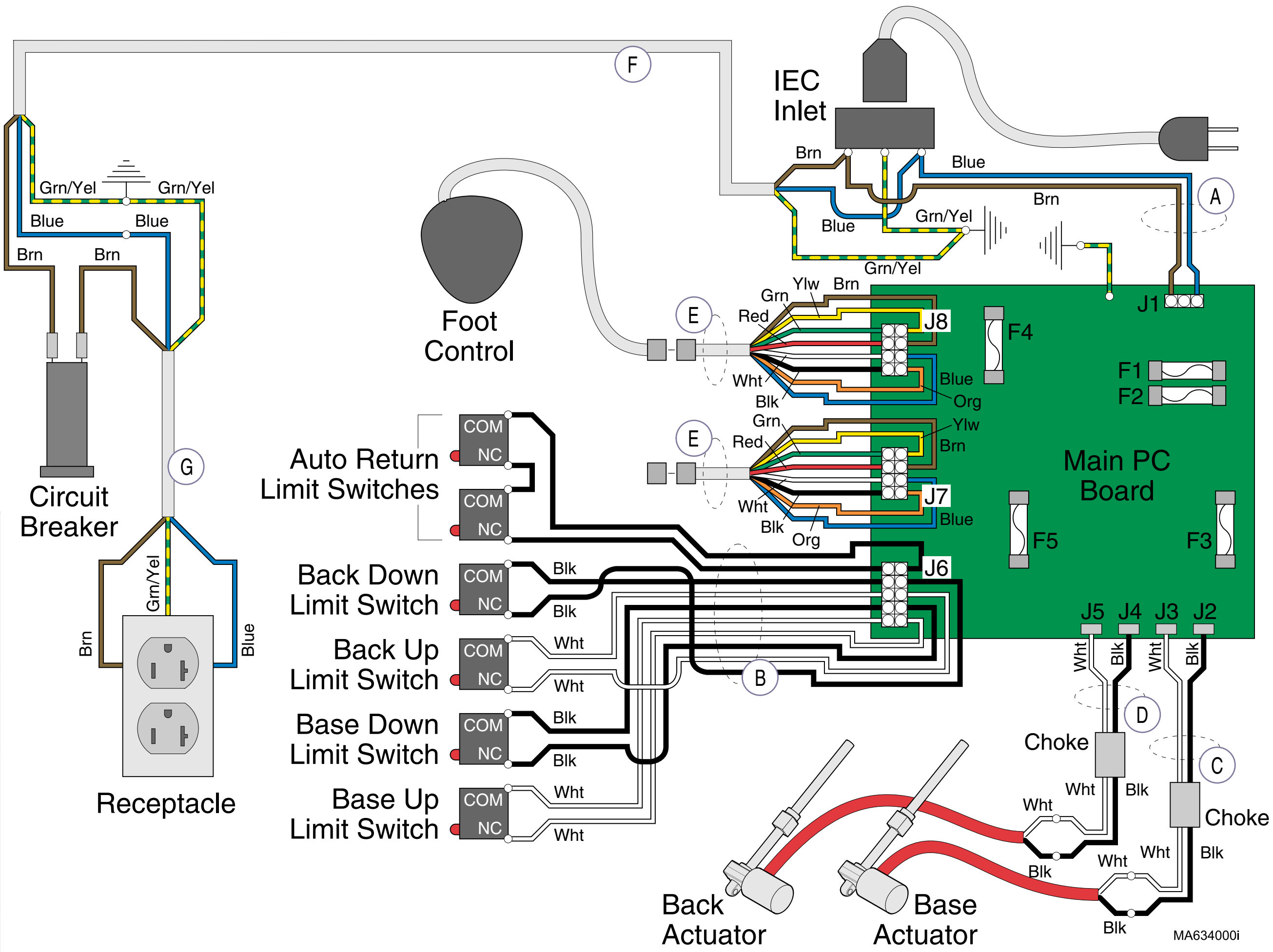
F
IEC Inlet
Brn
Blue
Grn/Yel
Brn
Blue
Grn/Yel
Grn/Yel
A
Grn/Yel
Grn/Yel
Blue
Blue
Brn
Brn
Foot Control
E
Grn
Ylw
Brn
Red
Wht
Blk
J8
Blue
Org
F4
J1
F1
F2
E
Grn
Red
Ylw
Brn
Wht
Blk
Org
J7
Blue
Main PC Board
F5
F3
J6
J5
J4
J3
J2
Wht
Blk
Wht
Blk
G
Circuit Breaker
Brn
Grn/Yel
Blue
Receptacle
Auto Return Limit Switches
COM
NC
COM
NC
Back Down Limit Switch
COM
NC
Blk
Blk
Back Up Limit Switch
COM
NC
Wht
Wht
Base Down Limit Switch
COM
NC
Blk
Blk
Base Up Limit Switch
COM
NC
Wht
Wht
B
D
Choke
Wht
Blk
C
Choke
Wht
Blk
Wht
Blk
Wht
Blk
Back Actuator
Base Actuator
MA634000i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1741-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1741-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Circuit Breaker	IEC Inlet	**015-1594-00**
G	Receptacle	Circuit Breaker	**015-1595-00**

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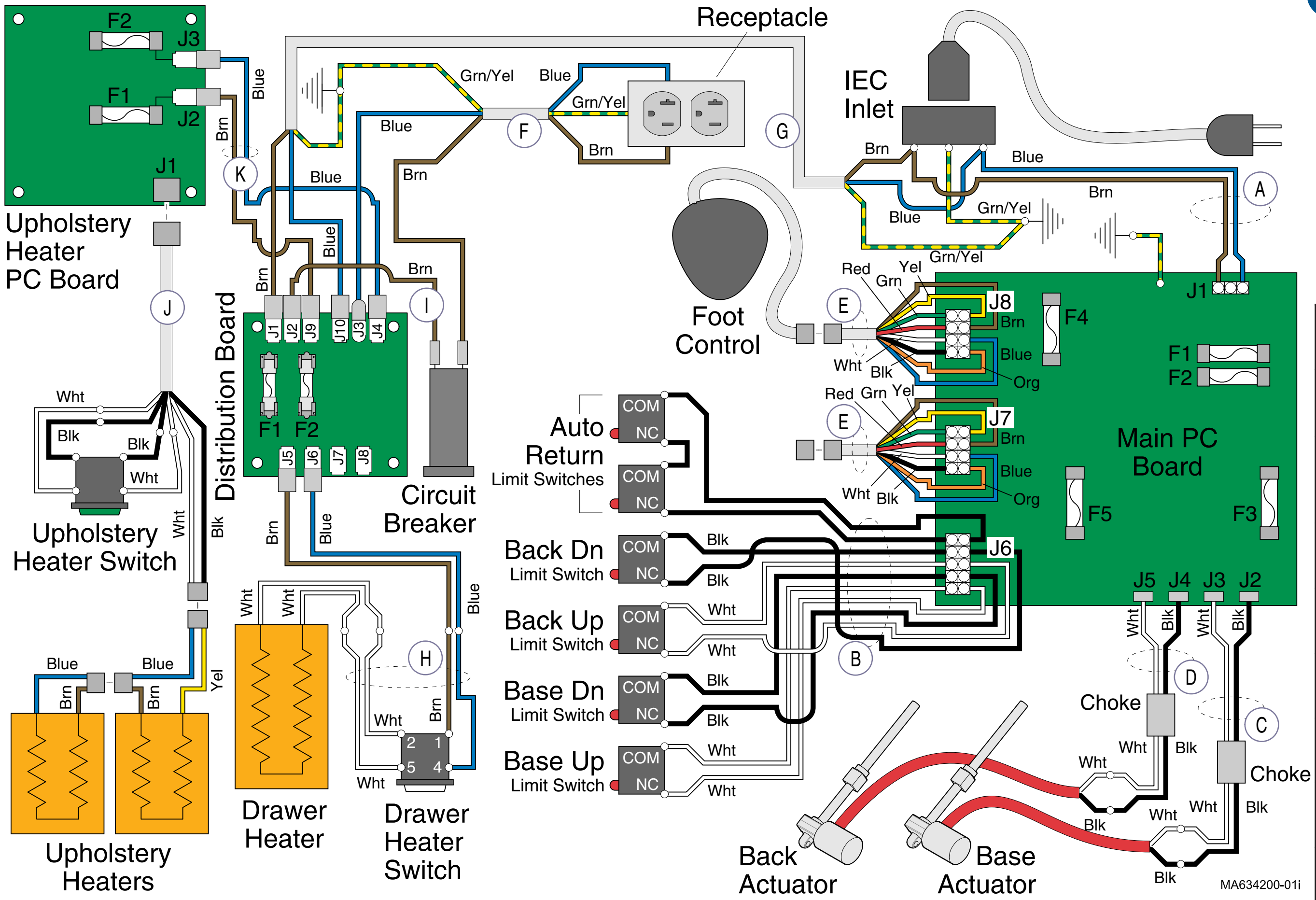
Upholstery Heater PC Board
F2
J3
F1
J2
J1
Blue
Brn
K
J
Receptacle
Grn/Yel
Blue
Grn/Yel
Brn
F
G
IEC Inlet
Brn
Blue
Brn
Grn/Yel
Blue
Grn/Yel
A
Foot Control
Distribution Board
J1 J2 J9 J10 J3 J4
F1 F2
J5 J6 J7 J8
I
Circuit Breaker
Wht
Blk
Blk
Wht
Upholstery Heater Switch
Wht
Blk
Brn
Blue
Blue
Blue
Blue
Brn
Brn
Yel
Upholstery Heaters
Wht
Wht
Drawer Heater
H
Wht
Brn
2 1
5 4
Wht
Drawer Heater Switch
Auto Return Limit Switches
COM
NC
Back Dn Limit Switch
Back Up Limit Switch
Base Dn Limit Switch
Base Up Limit Switch
Blk
Wht
B
Red
Yel
Grn
E
J8
Brn
Blue
Org
Wht
Blk
J7
Main PC Board
F4
F1
F2
F5
F3
J6
J5 J4 J3 J2
Wht
Blk
D
C
Choke
Choke
Back Actuator
Base Actuator
MA634200-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1741-00** *(includes Item B)*
B	Base,Back, & Auto Return Limit Switches	Main PC Board	**015-1741-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Receptacle	Circuit Breaker	**015-1595-00**
G	Distribution Board	IEC Inlet	**015-1594-00**
H	Heater Plate / Heater Switch	Distribution Board	**015-1629-00**
I	Circuit Breaker	Distribution Board	**015-0708-30**
J	Upholstery Heater Board	Upholstery Heater, On/Off Switch	**015-1722-00**
K	Distribution Board	Upholstery Heater Board	**015-1720-00**

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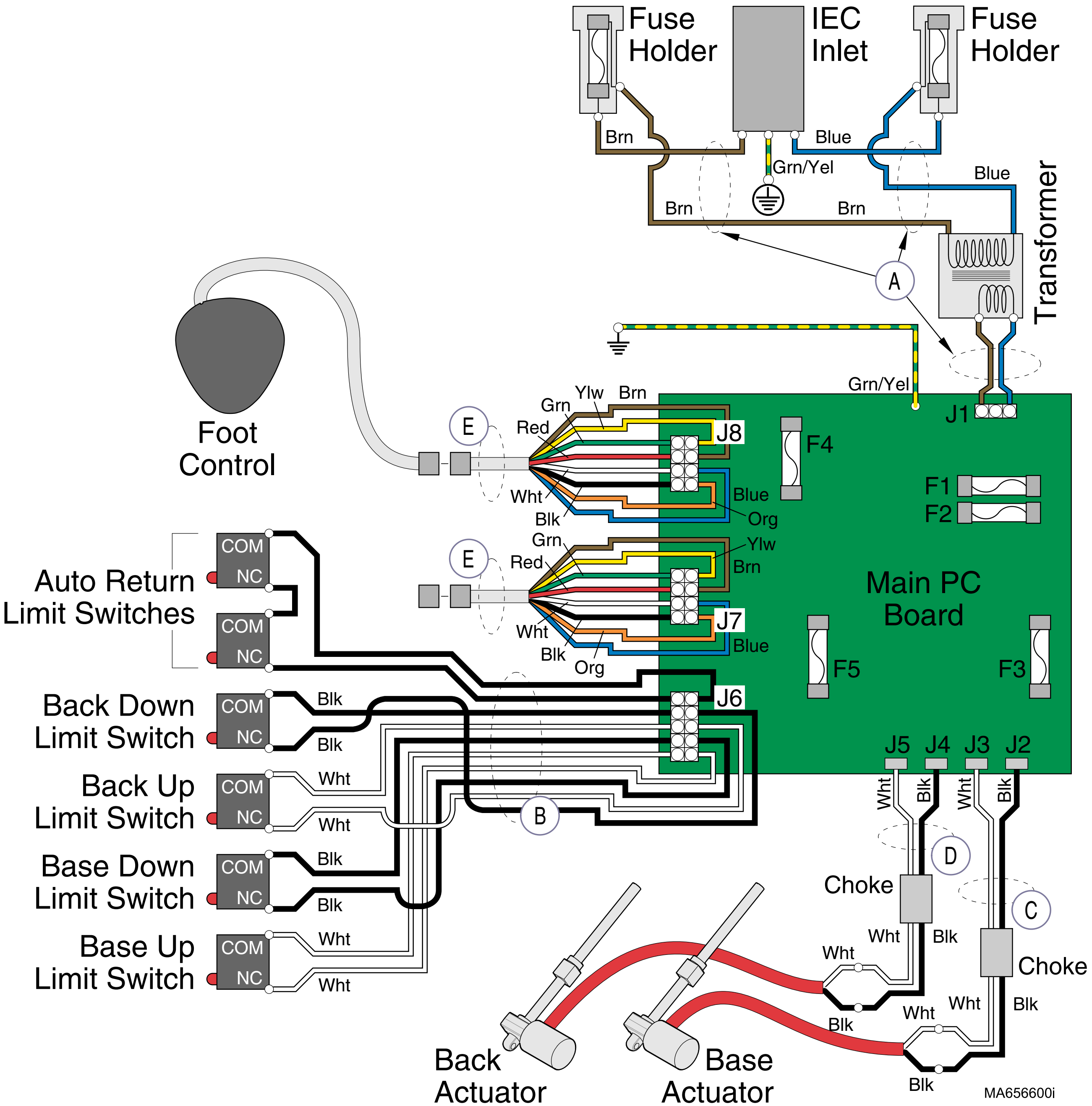
Fuse Holder
IEC Inlet
Fuse Holder
Brn
Blue
Grn/Yel
Blue
Brn
Brn
Transformer
A
Foot Control
Grn/Yel
J1
E
Ylw
Brn
Grn
Red
J8
F4
Wht
Blk
Blue
Org
F1
F2
E
Grn
Red
Ylw
Brn
Main PC Board
Wht
Blk
Org
J7
Blue
Auto Return Limit Switches
COM
NC
COM
NC
F5
F3
J6
Back Down Limit Switch
COM
NC
Blk
Blk
J5
J4
J3
J2
Back Up Limit Switch
COM
NC
Wht
Wht
Wht
Blk
Wht
Blk
B
Base Down Limit Switch
COM
NC
Blk
Blk
D
Choke
C
Base Up Limit Switch
COM
NC
Wht
Wht
Wht
Blk
Wht
Choke
Wht
Wht
Blk
Blk
Back Actuator
Base Actuator
Blk
MA656600i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1809-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1809-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**

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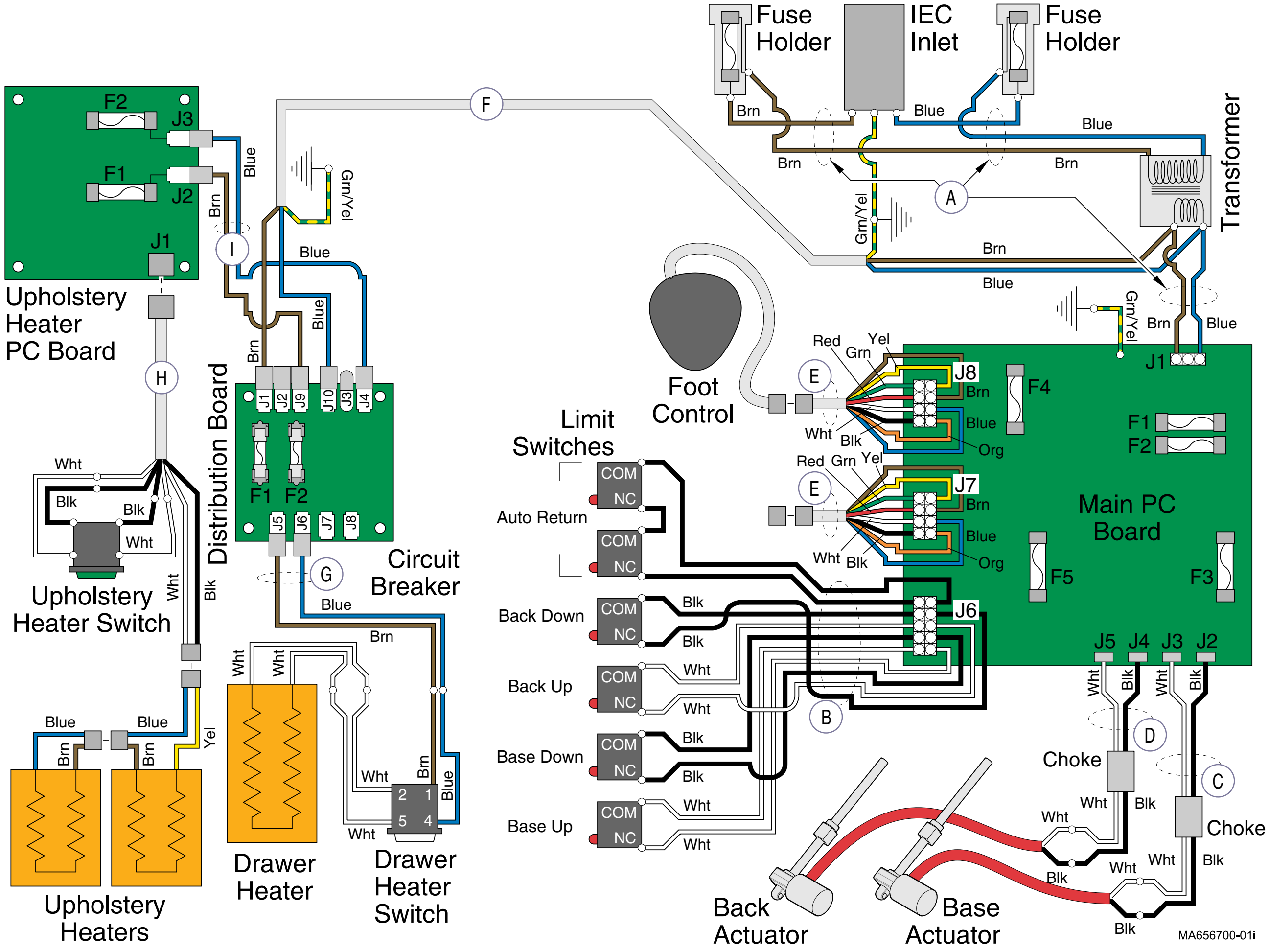
Fuse Holder
IEC Inlet
Fuse Holder
Transformer
Brn
Blue
Brn
Blue
Grn/Yel
A
F
Brn
Blue
Grn/Yel
Brn
Blue
J1
F2
J3
F1
J2
J1
Blue
Brn
Grn/Yel
I
Blue
Blue
Brn
Upholstery Heater PC Board
H
Distribution Board
J1 J2 J9 J10 J3 J4
F1 F2
J5 J6 J7 J8
G
Circuit Breaker
Blue
Brn
Wht
Blk
Blk
Wht
Upholstery Heater Switch
Wht
Blk
Blue
Blue
Brn
Brn
Yel
Upholstery Heaters
Wht
Wht
Drawer Heater
Wht
Brn
Blue
2 1
5 4
Wht
Drawer Heater Switch
Foot Control
Limit Switches
Auto Return
COM NC
Back Down
Back Up
Base Down
Base Up
Blk
Wht
E
Red Grn Yel
Wht Blk
J8
Brn
Blue
Org
J7
F4
F1
F2
Main PC Board
F5
F3
J6
B
J5 J4 J3 J2
Wht Blk Wht Blk
D
C
Choke
Choke
Wht
Blk
Back Actuator
Base Actuator
MA656700-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1809-00** *(includes Item B)*
B	Limit Switches (all)	Main PC Board	**015-1809-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Distribution Board	IEC Inlet	**015-2005-00**
G	Drawer Heater Switch	Distribution Board	*623-004* **015-1629-00**
	Drawer Heater Switch with Harness	Distribution Board	*623-010* **015-1759-00**
H	Uph. Heater PC Board	Uph.Heater Switch	**015-1722-00**
I	Distribution Board	Uph. Heater PC Board	*623-004* **015-1720-00** *623-010* **015-2006-00**

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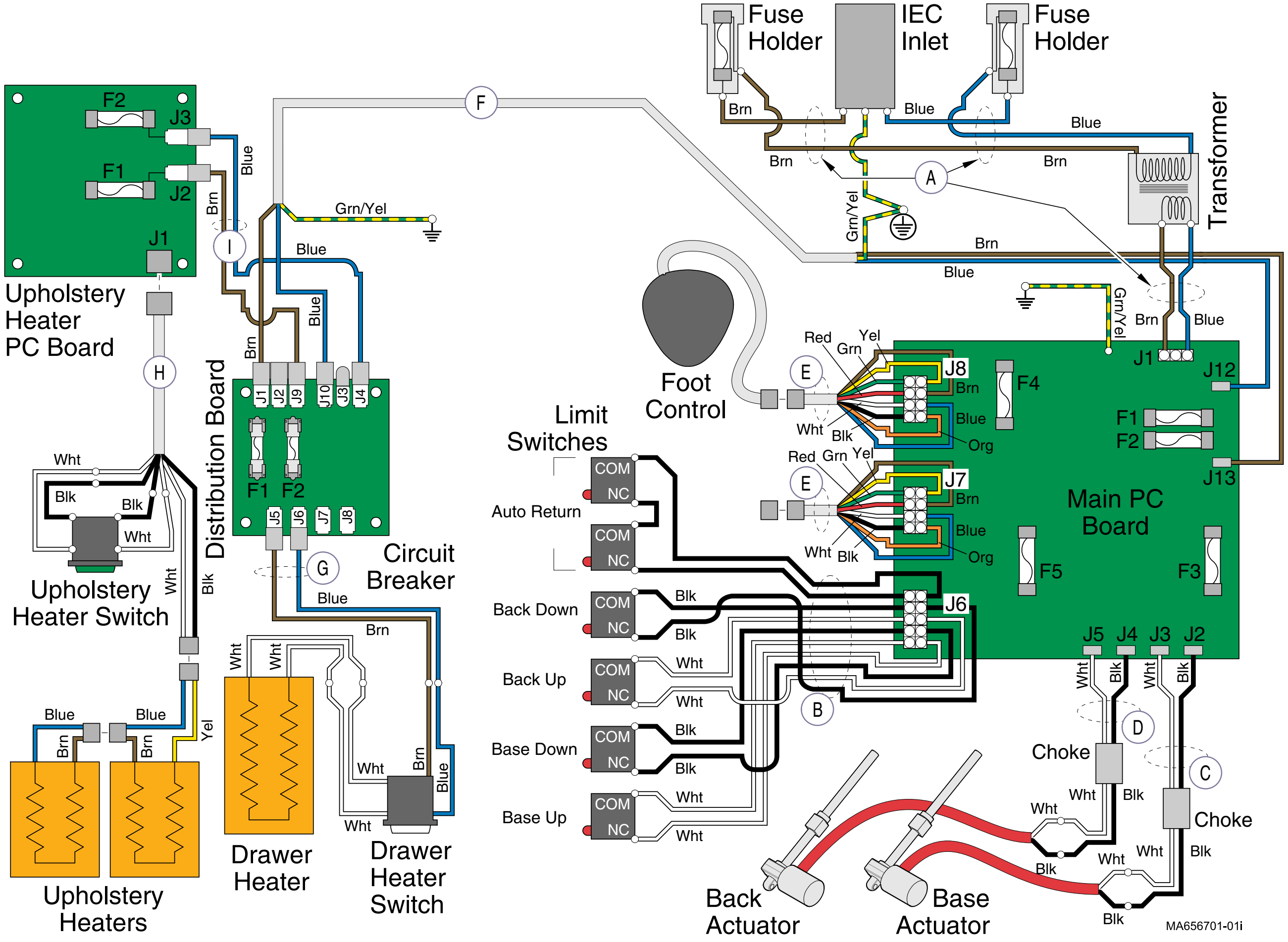
Fuse Holder
IEC Inlet
Fuse Holder
Transformer
Brn
Blue
Brn
Brn
A
Grn/Yel
Brn
Blue
F
F2
J3
F1
J2
J1
Blue
Brn
Grn/Yel
I
Blue
Upholstery Heater PC Board
H
Brn
Blue
J1 J2 J9 J10 J3 J4
F1 F2
J5 J6 J7 J8
Distribution Board
G
Circuit Breaker
Blue
Brn
Foot Control
E
Red Grn Yel
J8
Brn
Blue
Org
Wht Blk
F4
J1
J12
Grn/Yel
Brn
Blue
F1
F2
J13
E
J7
Main PC Board
F5
F3
J6
J5 J4 J3 J2
Limit Switches
COM NC
Auto Return
Back Down
Back Up
Base Down
Base Up
Blk
Wht
B
D
C
Choke
Choke
Wht
Blk
Wht
Blk
Upholstery Heater Switch
Blue
Brn
Yel
Upholstery Heaters
Drawer Heater
Drawer Heater Switch
Back Actuator
Base Actuator
MA656701-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1809-00** *(includes Item B)*
B	Limit Switches (all)	Main PC Board	**015-1809-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Distribution Board	IEC Inlet	**015-2005-00**
G	Drawer Heater Switch	Distribution Board	*623-004* **015-1629-00**
	Drawer Heater Switch with Harness	Distribution Board	*623-010* **015-1759-00**
H	Uph. Heater PC Board	Uph.Heater Switch	**015-1722-00**
I	Distribution Board	Uph. Heater PC Board	*623-004* **015-1720-00** *623-010* **015-2006-00**

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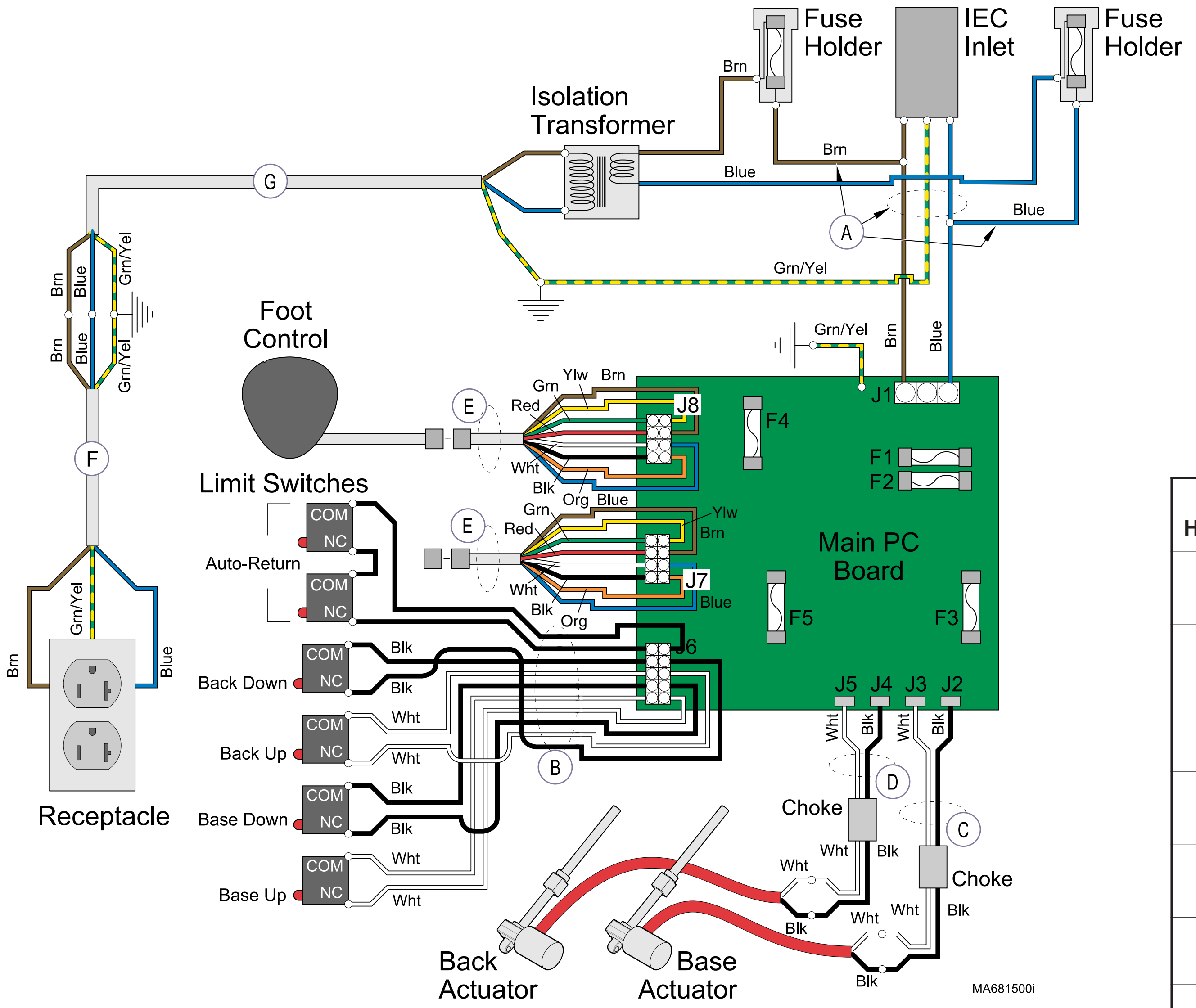

Fuse Holder
IEC Inlet
Fuse Holder
Brn
Isolation Transformer
Brn
Blue
Blue
A
G
Grn/Yel
Brn
Blue
Brn
Blue
Grn/Yel
Grn/Yel
Foot Control
Grn/Yel
Brn
Blue
J1
F4
F1
F2
Main PC Board
F5
F3
E
Grn
Ylw
Brn
Red
J8
Wht
Blk
Org
Blue
E
Grn
Ylw
Red
Brn
J7
Blue
Wht
Blk
Org
J6
F
Limit Switches
COM
NC
Auto-Return
COM
NC
Back Down
COM
NC
Blk
Blk
Back Up
COM
NC
Wht
Wht
Base Down
COM
NC
Blk
Blk
Base Up
COM
NC
Wht
Wht
B
Brn
Grn/Yel
Blue
Receptacle
J5
J4
J3
J2
Wht
Blk
Wht
Blk
D
Choke
Wht
Blk
C
Choke
Wht
Blk
Wht
Wht
Blk
Blk
Back Actuator
Base Actuator
MA681500i

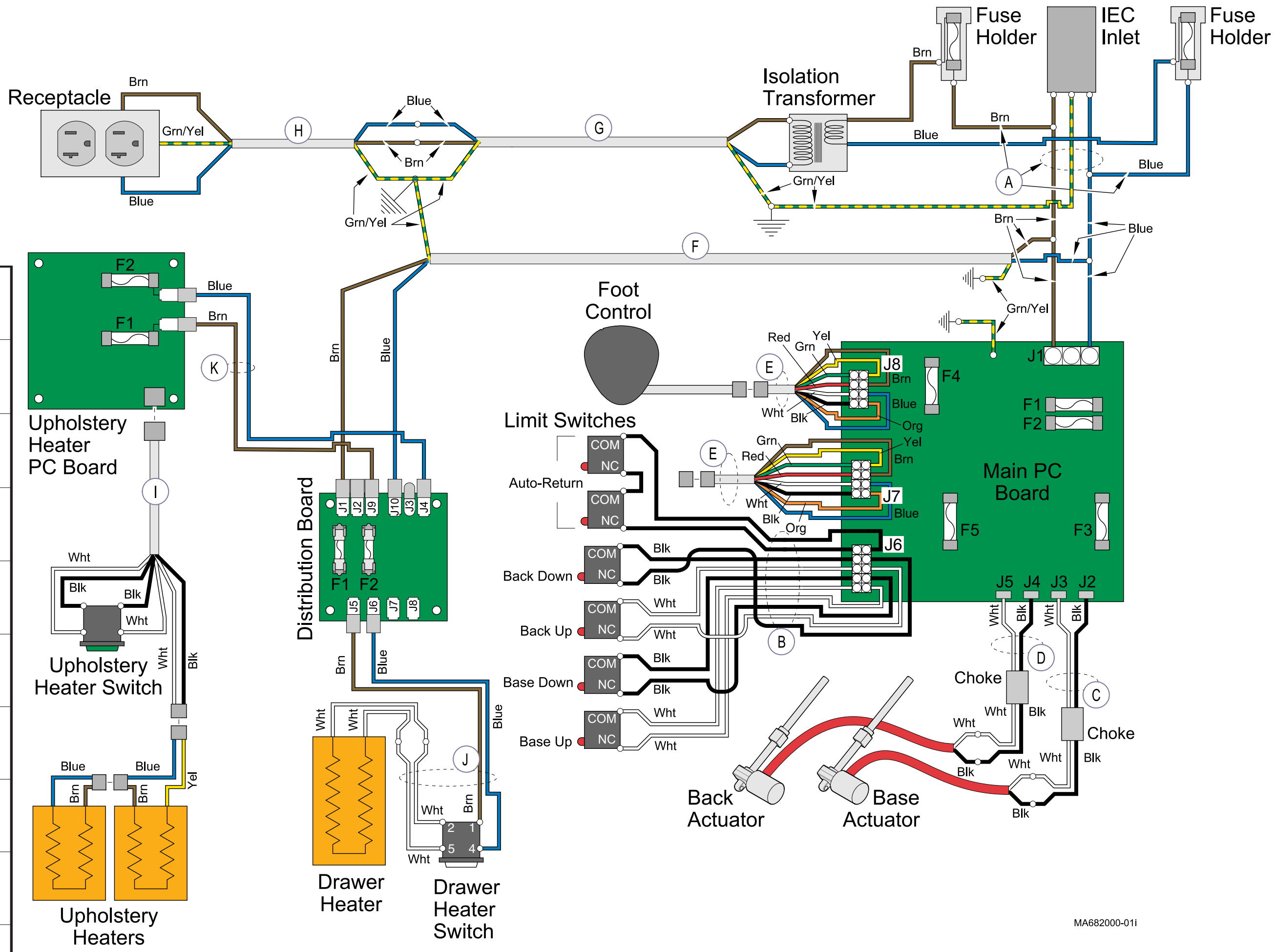
Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1854-00** *(includes Item B)*
B	Base & Back Limit Switches	Main PC Board	**015-1854-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Receptacle	Item G	**015-1595-00**
G	Isolation Transformer	Item F	**015-1845-00**

Models: *623 (-005)*
Serial Numbers: all

Go To Table Of Contents

Wiring Diagrams

Refer To: **Go To Page:**
Fuses E-25


Receptacle
Brn
Grn/Yel
Blue
H
Blue
Brn
Grn/Yel
G
Isolation Transformer
Grn/Yel
Brn
Fuse Holder
IEC Inlet
Fuse Holder
Brn
Blue
Blue
A
Brn
Blue
F
Grn/Yel
F2
F1
Blue
Brn
K
Upholstery Heater PC Board
I
Wht
Blk
Blk
Wht
Upholstery Heater Switch
Wht
Blk
Blue
Blue
Brn
Brn
Yel
Upholstery Heaters
Brn
Blue
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Brn
Blue
Blue
Wht
Wht
J
Wht
Brn
2
1
5
4
Wht
Drawer Heater
Drawer Heater Switch
Foot Control
Red
Grn
Yel
E
J8
Brn
Blue
Org
Wht
Blk
Limit Switches
COM
NC
Auto-Return
COM
NC
E
Grn
Red
Yel
Brn
J7
Blue
Wht
Blk
Org
F4
F1
F2
J1
Main PC Board
F5
F3
J6
Back Down
COM
NC
Blk
Blk
Back Up
COM
NC
Wht
Wht
Base Down
COM
NC
Blk
Blk
Base Up
COM
NC
Wht
Wht
B
J5
J4
J3
J2
Wht
Blk
Wht
Blk
D
Choke
C
Choke
Wht
Blk
Wht
Blk
Wht
Wht
Blk
Blk
Back Actuator
Base Actuator
MA682000-01i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1854-00** *(includes Item B)*
B	Limit Switches (all)	Main PC Board	**015-1854-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Distribution Board	Item A	**015-1594-00**
G	Isolation Transformer	Item H	**015-1845-00**
H	Receptacle	Item G	**015-1595-00**
I	Uph. Heater PC Board	Upholstery Heater Switch	**015-1722-00**
J	Drawer Heater Plate / Switch	Distribution Board	**015-1629-00**
K	Distribution Board	Uph. Heater PC Board	**015-1720-00**

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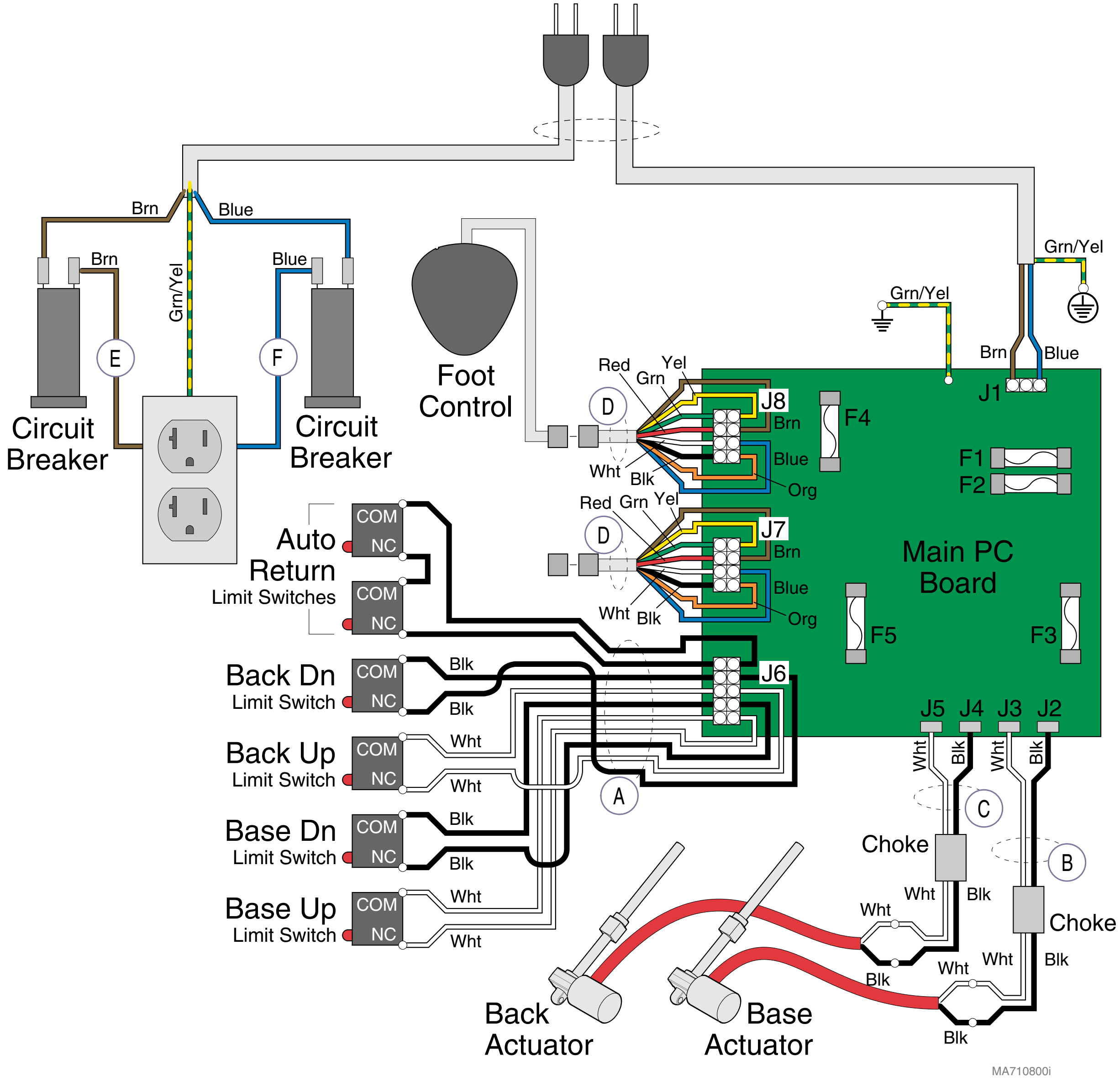
Wiring Diagrams

Refer To: Go To Page:
Fuses E-25


Brn
Blue
Brn
Blue
Grn/Yel
E
F
Circuit Breaker
Circuit Breaker
Foot Control
Grn/Yel
Grn/Yel
Brn
Blue
J1
Red
Yel
Grn
D
J8
Brn
Blue
Org
Wht
Blk
F4
F1
F2
Red
Grn
Yel
D
J7
Brn
Blue
Org
Wht
Blk
Main PC Board
F5
F3
COM
NC
COM
NC
Auto Return
Limit Switches
Back Dn
Limit Switch
COM
NC
Blk
Blk
J6
Back Up
Limit Switch
COM
NC
Wht
Wht
A
Base Dn
Limit Switch
COM
NC
Blk
Blk
Base Up
Limit Switch
COM
NC
Wht
Wht
J5
J4
J3
J2
Wht
Blk
Wht
Blk
C
Choke
B
Choke
Wht
Blk
Wht
Blk
Wht
Blk
Wht
Blk
Back Actuator
Base Actuator
MA710800i

Wire Harness	From:	To:	Part Number
A	Limit Switches *(all)*	Main PC Board	**015-2008-00**
B	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
C	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Foot / Hand Control Inlet Harness	Main PC Board	**015-3464-00**
E	Circuit Breaker *(brown wire)*	Table Receptacle	**015-1886-00**
F	Circuit Breaker *(blue wire)*	Table Receptacle	**015-1886-01**

Rev. 6/11/15

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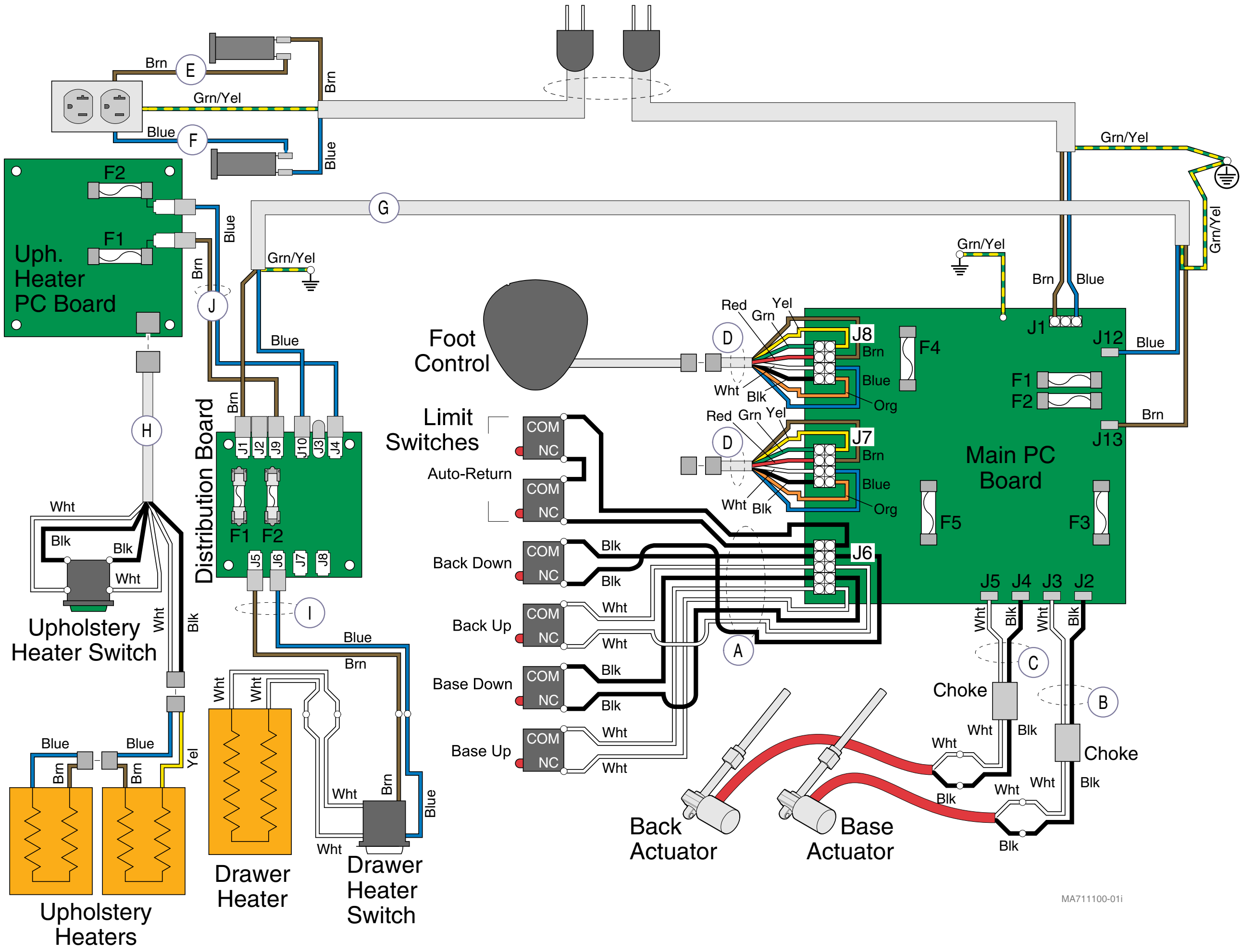
Wiring Diagrams

Refer To: **Go To Page:**
Fuses E-25

Wire Harness	From:	To:	Part Number
A	Limit Switches (all)	Main PC Board	**015-2008-00**
B	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
C	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
E	Circuit Breaker *(brown wire)*	Table Receptacle	**015-1886-00**
F	Circuit Breaker *(blue wire)*	Table Receptacle	**015-1886-01**
G	Distribution Board	Main PC Board	**015-2005-00**
H	Uph. Heater PC Board	Upholstery Heater Switch	**015-1722-00**
I	Drawer Heater Switch with Harness	Distribution Board	**015-1759-00**
J	Distribution Board	Uph. Heater PC Board	**015-2006-00**


Brn
E
Grn/Yel
Blue
F
Brn
Blue
F2
F1
Uph. Heater PC Board
G
Grn/Yel
Blue
Brn
J
Grn/Yel
Foot Control
D
Red
Grn
Yel
Wht
Blk
J8
Brn
Blue
Org
F4
J1
J12
Blue
F1
F2
Brn
J13
Limit Switches
Auto-Return
COM
NC
COM
NC
Red
Grn
Yel
D
J7
Brn
Blue
Org
Wht
Blk
Main PC Board
F5
F3
Back Down
COM
NC
Blk
Blk
J6
Back Up
COM
NC
Wht
Wht
Base Down
COM
NC
Blk
Blk
Base Up
COM
NC
Wht
Wht
A
J5
J4
J3
J2
Wht
Blk
Wht
Blk
C
Choke
B
Wht
Blk
Choke
Wht
Blk
Wht
Blk
Wht
Blk
Blk
Back Actuator
Base Actuator
Distribution Board
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
Brn
Blue
H
Wht
Blk
Blk
Wht
Upholstery Heater Switch
Wht
Blk
I
Blue
Brn
Blue
Blue
Brn
Brn
Yel
Upholstery Heaters
Wht
Wht
Drawer Heater
Wht
Brn
Blue
Wht
Drawer Heater Switch
MA711100-01i

Models: **623** (-008)
Serial Numbers: all

Rev. 6/11/15

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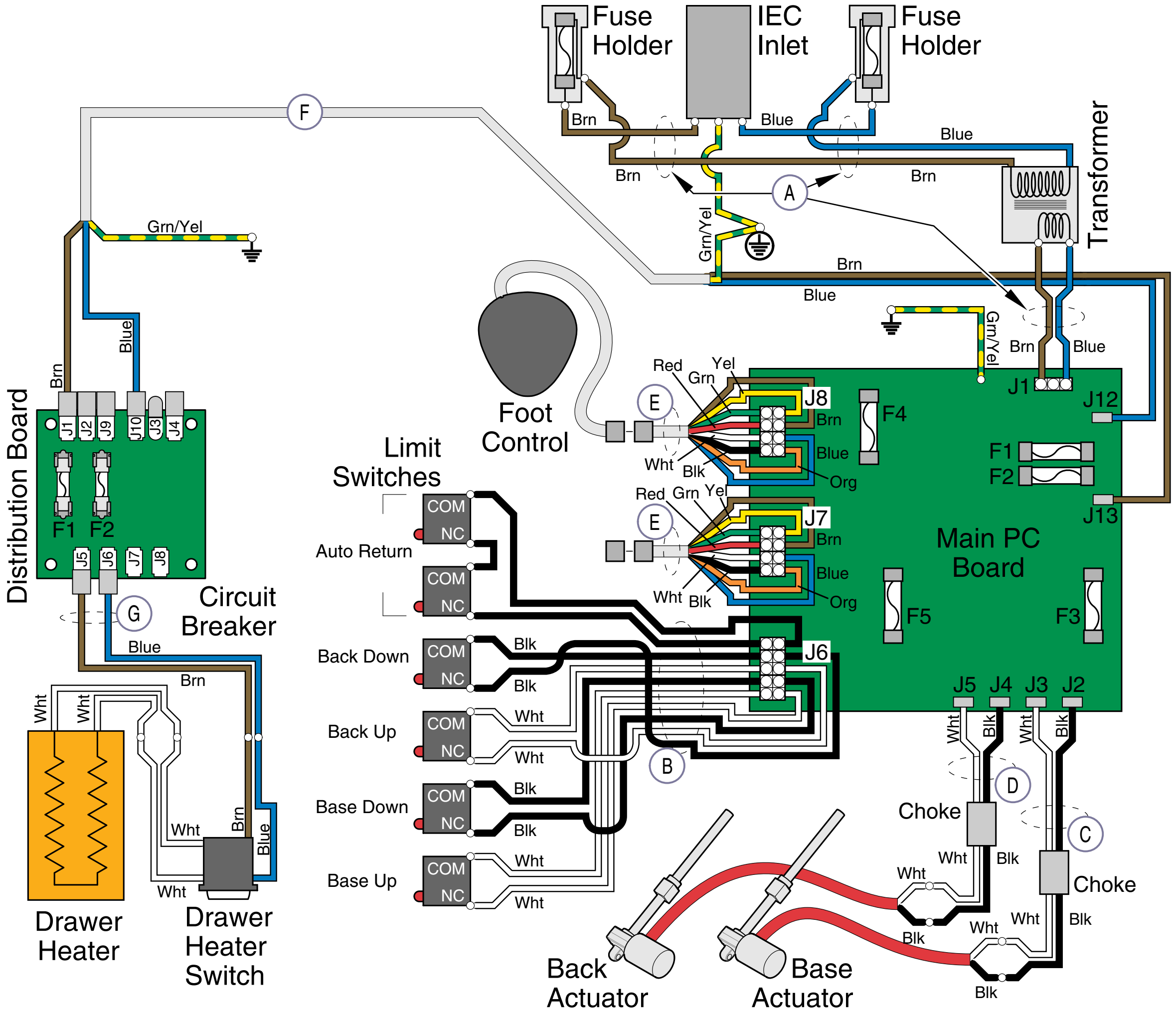
Refer To: Go To Page:
Fuses E-25


Fuse Holder
IEC Inlet
Fuse Holder
Brn
Blue
Blue
Brn
Brn
A
Transformer
F
Grn/Yel
Grn/Yel
Brn
Blue
Foot Control
Grn/Yel
Brn
Blue
Distribution Board
Brn
Blue
J1
J2
J9
J10
J3
J4
F1
F2
J5
J6
J7
J8
G
Circuit Breaker
Blue
Brn
Wht
Wht
Wht
Brn
Blue
Wht
Drawer Heater
Drawer Heater Switch
Limit Switches
Auto Return
COM
NC
Back Down
Back Up
Base Down
Base Up
Blk
Wht
E
Red
Grn
Yel
J8
Brn
Blue
Org
Wht
Blk
E
J7
J6
F4
J1
J12
F1
F2
J13
Main PC Board
F5
F3
J5
J4
J3
J2
B
D
C
Choke
Choke
Wht
Blk
Back Actuator
Base Actuator
MA8801i

Wire Harness	From:	To:	Part Number
A	IEC Inlet	Main PC Board	**015-1809-00** *(includes Item B)*
B	Limit Switches (all)	Main PC Board	**015-1809-00** *(includes Item A)*
C	Base Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
D	Back Actuator Wires	Main PC Board	**015-1635-00** *(includes choke)*
E	Foot Control Inlet Harness	Main PC Board	**015-3464-00**
F	Distribution Board	IEC Inlet	**015-2005-00**
G	Drawer Heater Switch with Harness	Distribution Board	**015-1759-00**

Models: *623 (-011)*
Serial Numbers: all

Rev. 6/11/15

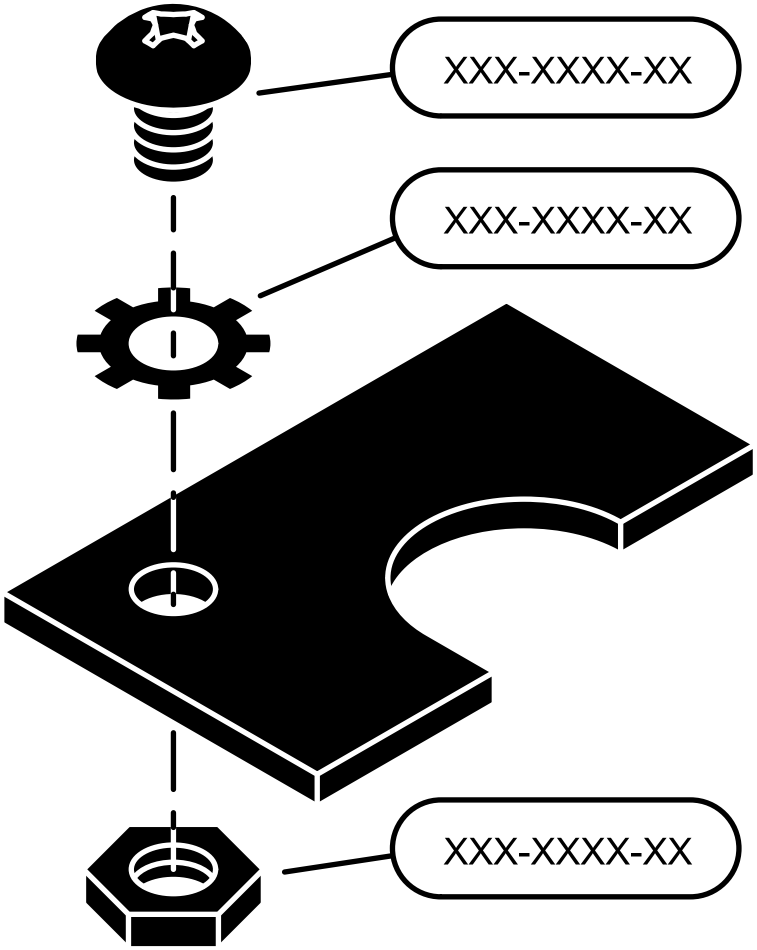
Section E

Exploded Views & Parts Lists

Model

Go To Page:

222 .... E-2
223 .... E-3
622 .... E-4
623 .... E-5


XXX-XXXX-XX
XXX-XXXX-XX
XXX-XXXX-XX

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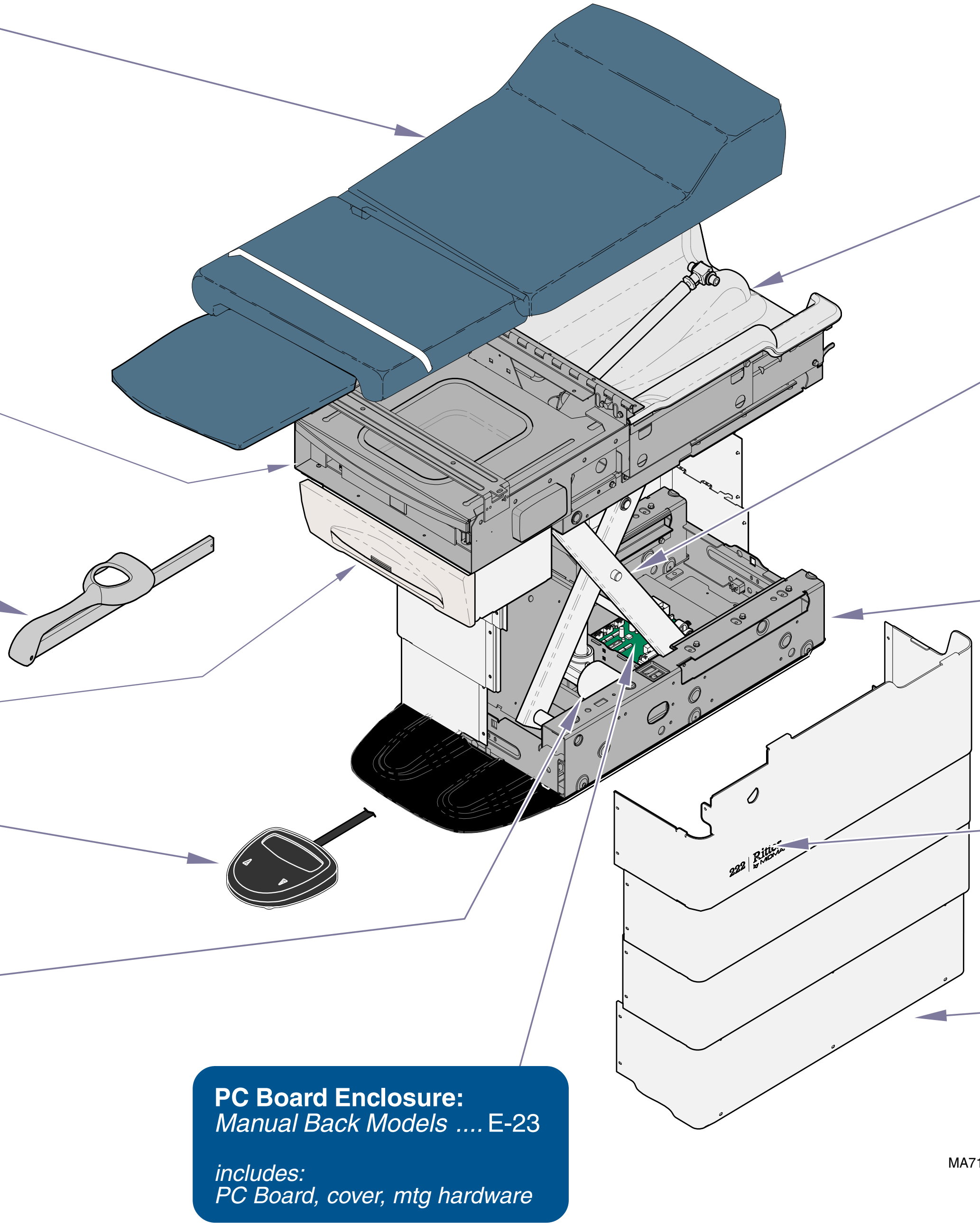
222



Upholstery - Ritter:
Soft Touch E-6*
Seamless E-7*

includes:
footrest pad, paper roll holder, handles, etc.

Ritter Upperwrap & Footrest Shelf E-16*

includes:
footrest shelf, stirrup guide, treatment pan, etc.

Stirrups. E-18

Exam Assistant Drawer Assy. E-26

Foot Control:
222 / 622 .... E-27

Base Actuator. E-22

Fuses *(all)* E-25

PC Board Enclosure:
Manual Back Models E-23

includes:
PC Board, cover, mtg hardware

Optional Features
Drawer Heater E-31*
Pelvic Tilt E-32*
Table Receptacle E-34*
Transformer / Fuses:
230 VAC Models E-36
Canadian Models E-35

Manual Back Components E-10*
Handle Kit E-11

includes:
gas spring, top cover, handles, release mechanism, etc.

Base Scissor / Slide Mechanism E-19*

Ritter Base Components E-20*

includes:
power cord, base slides base limit switches, etc.

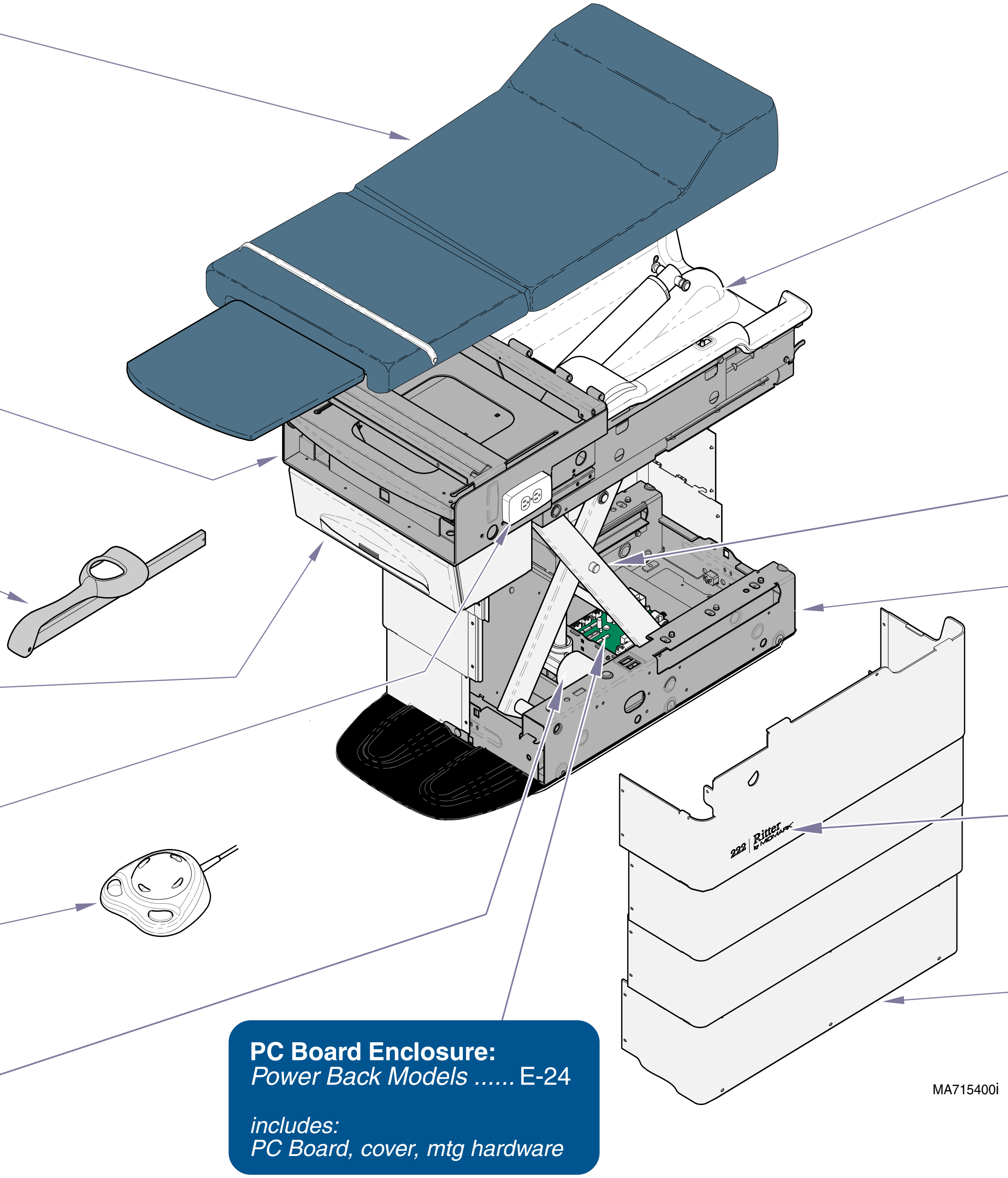
Label Location E-38

Table Shrouds:
Ritter Models E-14*

** Indicates multiple pages due to a model / serial number break for the parts illustration*

Go To Table Of Contents

223



Upholstery - Ritter:
Soft Touch E-6*
Seamless E-7*

includes:
footrest pad, paper roll holder, handles, etc.

Ritter Upperwrap & Footrest Shelf E-16.1*

includes:
footrest shelf, stirrup guide, treatment pan, etc.

Stirrups. E-18

Exam Assistant Drawer Assy. E-26

Table Receptacle System E-34*

Foot Control:
223 .... E-28*

Base Actuator. E-22

Hand Control E-30*
(Optional)

PC Board Enclosure:
Power Back Models E-24

includes:
PC Board, cover, mtg hardware

Optional Features
Drawer Heater E-31*
Pelvic Tilt E-32*
Transformer / Fuses:
230 VAC Models E-36
Canadian Models E-35

Power Back Components E-12*

includes:
limit switches, top cover, etc.

Back Actuator E-13

Base Scissor / Slide Mechanism E-19.2*

Ritter Base Components E-20.2*

includes:
power cord, base slides base limit switches, etc.

Label Location E-38

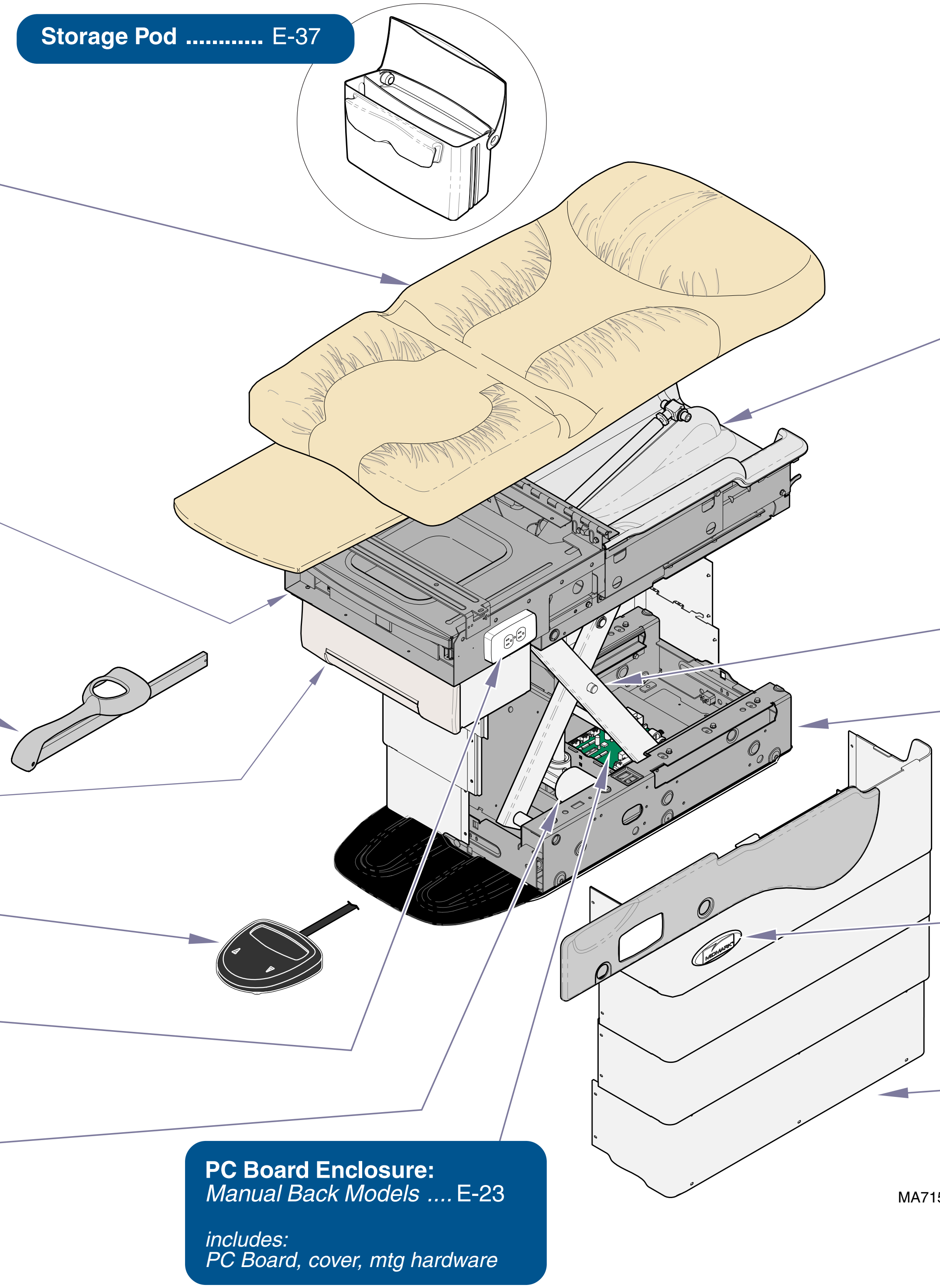
Table Shrouds:
Ritter Models E-14.1*

Fuses *(all)* E-25

**** Indicates multiple pages due to a model / serial number break for the parts illustration***

Go To Table Of Contents

622



Storage Pod E-37

Upholstery - Midmark:
*Premium E-8**
*Ultra-Premium E-9**

includes:
footrest pad, paper roll holder, handles, etc.

Midmark Upperwrap & Footrest Shelf E-17*

includes:
footrest shelf, stirrup guide, treatment pan, etc.

Stirrups........... E-18

Exam Assistant Drawer Assy. E-26

Foot Control:
222 / 622 .... E-27

Table Receptacle System...................... E-34*

Base Actuator.......... E-22

PC Board Enclosure:
Manual Back Models E-23

includes:
PC Board, cover, mtg hardware

Optional Features

Drawer Heater E-31*
Pelvic Tilt E-32*
Upholstery Heater....... E-33
Transformer / Fuses:
230 VAC Models E-36
Canadian Models E-35

Manual Back Components E-10*
Handle Kit E-11

includes:
gas spring, top cover, handles, release mechanism, etc.

Base Scissor / Slide Mechanism E-19.2*

Midmark Base Components E-21*

includes:
power cord, base slides base limit switches, etc.

Label Location E-38

Table Shrouds:
Midmark Models E-15*

Fuses *(all) ....* E-25

***** *Indicates multiple pages due to a model / serial number break for the parts illustration***

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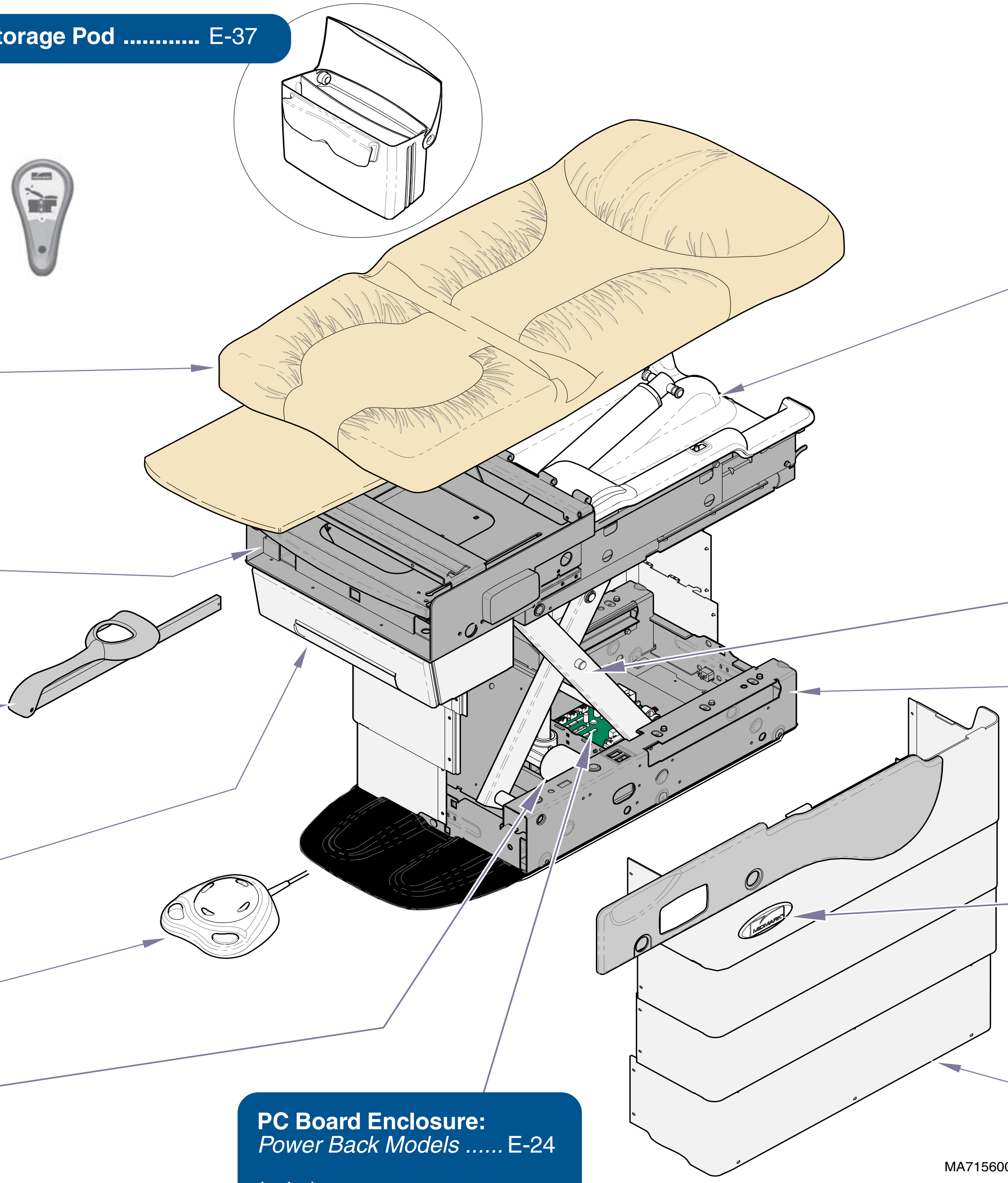
623



Storage Pod E-37

Hand Control E-30*

Upholstery - Midmark:
Premium E-8*
Ultra-Premium E-9*

includes:
footrest pad, paper roll holder, handles, etc.

Midmark Upperwrap & Footrest Shelf E-17*

includes:
footrest shelf, stirrup guide, treatment pan, etc.

Stirrups. E-18

Exam Assistant Drawer Assy. E-26

Foot Control:
623 .... E-29*

Base Actuator. E-22

Fuses *(all)* E-25

PC Board Enclosure:
Power Back Models E-24

includes:
PC Board, cover, mtg hardware

Optional Features

Drawer Heater E-31*
Pelvic Tilt E-32*
Table Receptacle E-34*
Upholstery Heater E-33
Transformer / Fuses:
230 VAC Models E-36
Canadian Models E-35

Power Back Components E-12*

includes:
limit switches, top cover, etc.

Back Actuator E-13

Base Scissor / Slide Mechanism E-19.2*

Midmark Base Components E-21.1*

includes:
power cord, base slides base limit switches, etc.

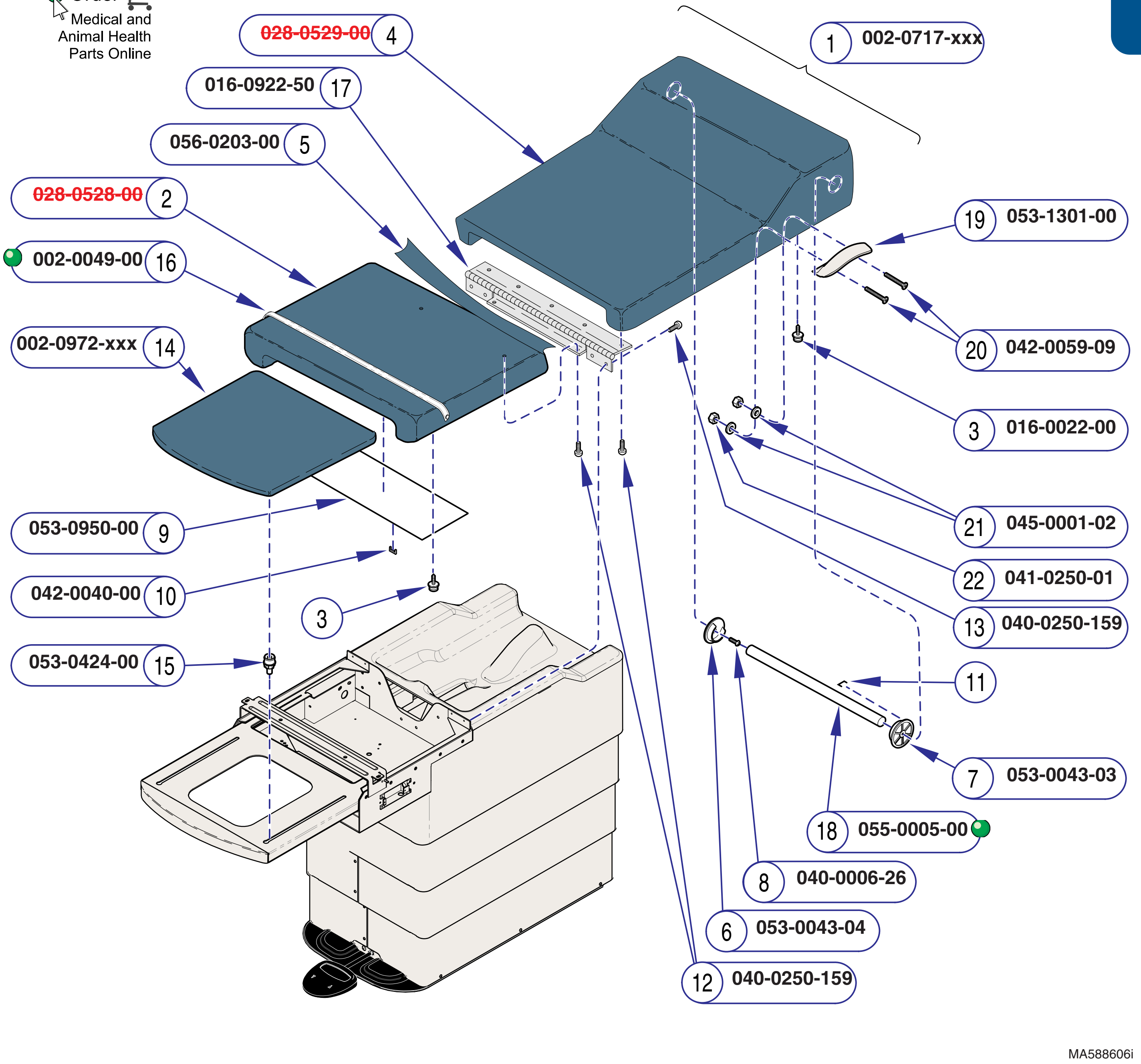
Label Location E-38

Table Shrouds:
Midmark Models E-15*

***** *Indicates multiple pages due to a model / serial number break for the parts illustration***

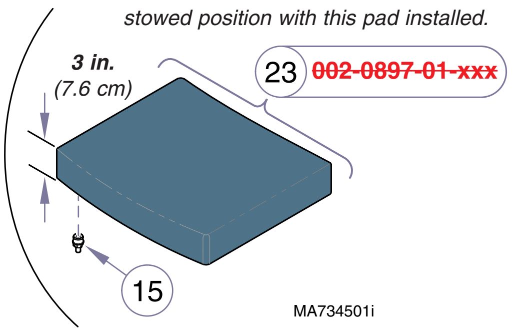
Order
Medical and
Animal Health
Parts Online

Refer To:
Color Selector .... www.midmark.com



~~028-0529-00~~ 4
1 002-0717-xxx
016-0922-50 17
056-0203-00 5
~~028-0528-00~~ 2
002-0049-00 16
002-0972-xxx 14
19 053-1301-00
20 042-0059-09
3 016-0022-00
053-0950-00 9
042-0040-00 10
3
053-0424-00 15
21 045-0001-02
22 041-0250-01
13 040-0250-159
11
7 053-0043-03
18 055-0005-00
8 040-0006-26
6 053-0043-04
12 040-0250-159
MA588606i

Item #23 is a special order option.
***Note:** The footrest shelf will not slide into the stowed position with this pad installed.*



3 in.
(7.6 cm)
23 ~~002-0897-01-xxx~~
15
MA734501i

ATTENTION: Refer to *Color Selector* link for appropriate numbers to replace -xxx.

Item	Description	Qty.
1	Cut & Sewn Upholstery Kit .... *(includes items 2 thru 13)*	1
2	• Upholstered Seat w/Stud *(specify color)* ..	1
3	• • Stud	4
4	• Upholstered Headboard w/Stud *(specify color)*	1
5	• Hinge Cover *(specify color)*	1
6	• R.H. Dowel Socket	1
7	• L.H. Dowel Socket	1
8	• Screw *(#6 x .5")*	2
9	• Scuff Plate	1
10	• Staple	10
11	• Staple	AR
12	• Screw	4
13	• Screw *(1/4-20 x .87")*	8
14	Upholstered Footrest *(specify color)* *[includes four glides (item #15)]*	1
15	Footrest Glide	4
16	Tear Straps Kit *(includes two straps)*	1
17	Hinge Assembly	1
18	Dowel Rod	1
19	Release Handle Grip *(222 only)*	2
20	Screw *(1/4-20 x 1.75" [222 only])*	4
21	Washer *(222 only)*	4
22	Nut *(1/4-20 [222 only])*	4
23	Footrest Pad - special *(3 in. thick)* *[includes four glides (item #15)]*	1
24	Kit, Upholstery Packaging (002-1907-00) *(not shown)*	*1*

Always Specify Model & Serial Number

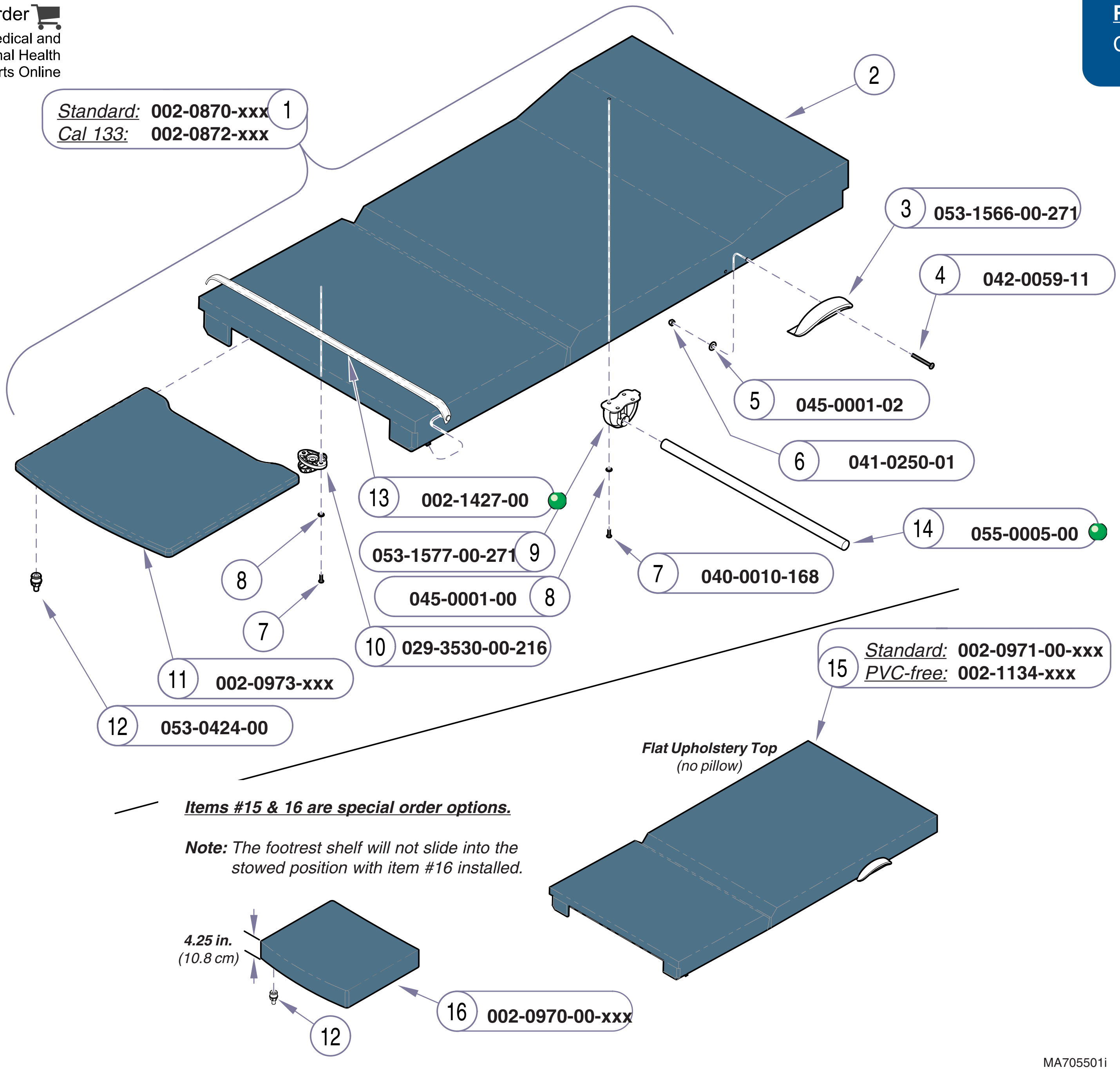
Upholstery - Ritter
(Soft Touch)

Models: Serial Numbers:	***222** (-001 thru -004, -011, -012)* *All*	***223** (-001 thru -004, -011, -012)* *All*

Rev. 10/27/16

Order
Medical and
Animal Health
Parts Online

Refer To:
Color Selector .... www.midmark.com


Standard: 002-0870-xxx
Cal 133: 002-0872-xxx
1
2
3 053-1566-00-271
4 042-0059-11
5 045-0001-02
6 041-0250-01
13 002-1427-00
053-1577-00-271 9
045-0001-00 8
7 040-0010-168
14 055-0005-00
8
7
10 029-3530-00-216
11 002-0973-xxx
12 053-0424-00
15 Standard: 002-0971-00-xxx
PVC-free: 002-1134-xxx
Flat Upholstery Top
(no pillow)
4.25 in.
(10.8 cm)
16 002-0970-00-xxx
12
MA705501i

Items #15 & 16 are special order options.

Note: *The footrest shelf will not slide into the stowed position with item #16 installed.*

ATTENTION: Refer to *Color Selector* link for appropriate numbers to replace -xxx.

Item	Description	Qty.
1	Upholstery Set *(includes items 2 thru 12)* ...	1
2	• Seat/Back Upholstery	1
3	• Handle	2
4	• Screw	4
5	• Washer	4
6	• Nylock Nut	4
7	• Screw *(10-24 x 5/8")*	16
8	• Washer *(early models only)*	16
9	• Paper Roll Bracket	2
10	• Locking Knob	6
11	• Footrest Pad *[includes four glides (item #12)]*	1
12	• Footrest Glide	4
13	Tear Strap	1
14	Dowel Rod	1
15	Flat Upholstery Top *(includes items 3 thru 10)*	1
16	Footrest Pad - *special (4.25 in. thick)* *[includes four glides (item #12)]*	1
17	Kit, Upholstery Packaging (002-1907-00) *(not shown)*	*1*

Always Specify Model & Serial Number

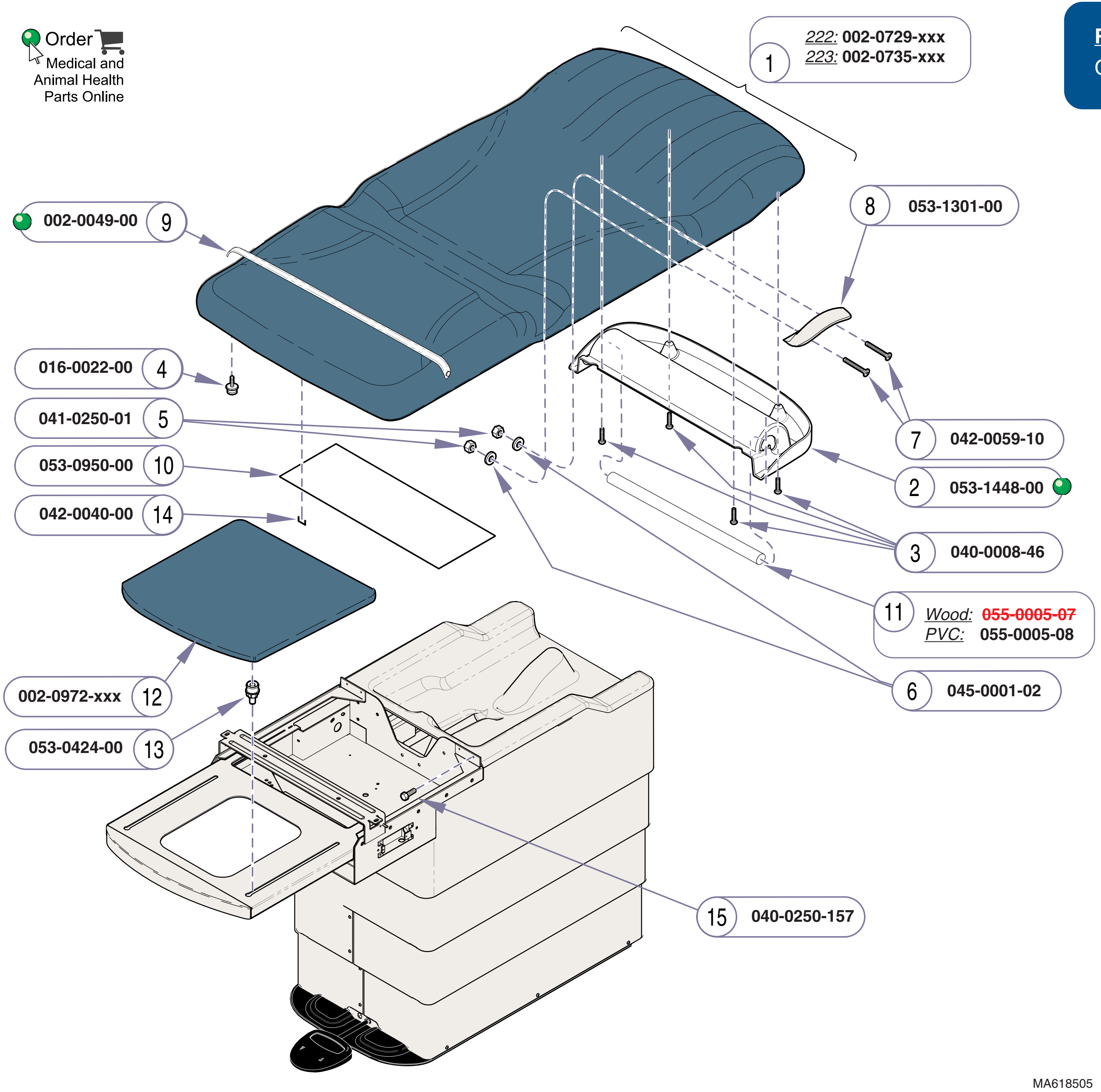
Models: Serial Numbers:	***222** (-015 thru -017)* *All*	***223** (-015 & -016)* *All*

Upholstery - Ritter
(Soft Touch)

Go To Table Of Contents

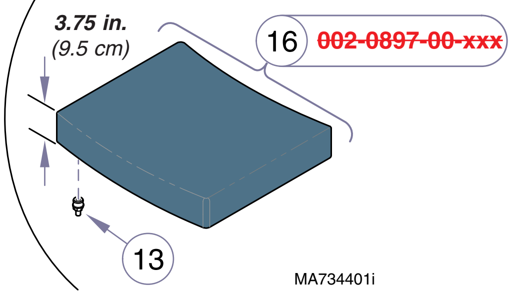
Order
Medical and
Animal Health
Parts Online

Refer To:
Color Selector .... www.midmark.com


1
222: 002-0729-xxx
223: 002-0735-xxx
002-0049-00 9
8 053-1301-00
016-0022-00 4
041-0250-01 5
053-0950-00 10
042-0040-00 14
7 042-0059-10
2 053-1448-00
3 040-0008-46
11 *Wood:* ~~055-0005-07~~
PVC: 055-0005-08
6 045-0001-02
002-0972-xxx 12
053-0424-00 13
15 040-0250-157
MA618505

Item #16 is a special order option.

Note: *The footrest shelf will not slide into the stowed position with this pad installed.*


3.75 in.
(9.5 cm)
16 ~~002-0897-00-xxx~~
13
MA734401i

ATTENTION: Refer to *Color Selector* link for appropriate numbers to replace -xxx.

Item	Description	Qty.
1	Seamless Upholstery Top:	
	222 (includes items 2 thru 8)	1
	223 (includes items 2 thru 4)	1
2	• Paper Roll Holder	1
3	• Screw	4
4	• Stud	2
5	• Nut *(222 only)*	4
6	• Washer *(222 only)*	4
7	• Bolt *(222 only)*	4
8	• Release Handle Grip *(222 only)*................	2
9	Tear Strap Kit	1
10	Scuff Plate	1
11	Dowel Rod	1
12	Upholstered Footrest *(specify color)* *[includes four glides (item #13)]*...............	1
13	Footrest Guide	4
14	Staple	10
15	Bolt	4
16	Footrest Pad - *special (3.75 in. thick)* *[includes four glides (item #13)]*...............	1
17	Kit, Upholstery Packaging (002-1907-00) *(not shown)*	*1*

Always Specify Model & Serial Number

Upholstery - Ritter
(Seamless)

Models: Serial Numbers:	***222*** ***(-005 thru -010, -013, -014)*** *All*	***223*** ***(-005 thru -010, -013, -014)*** *All*

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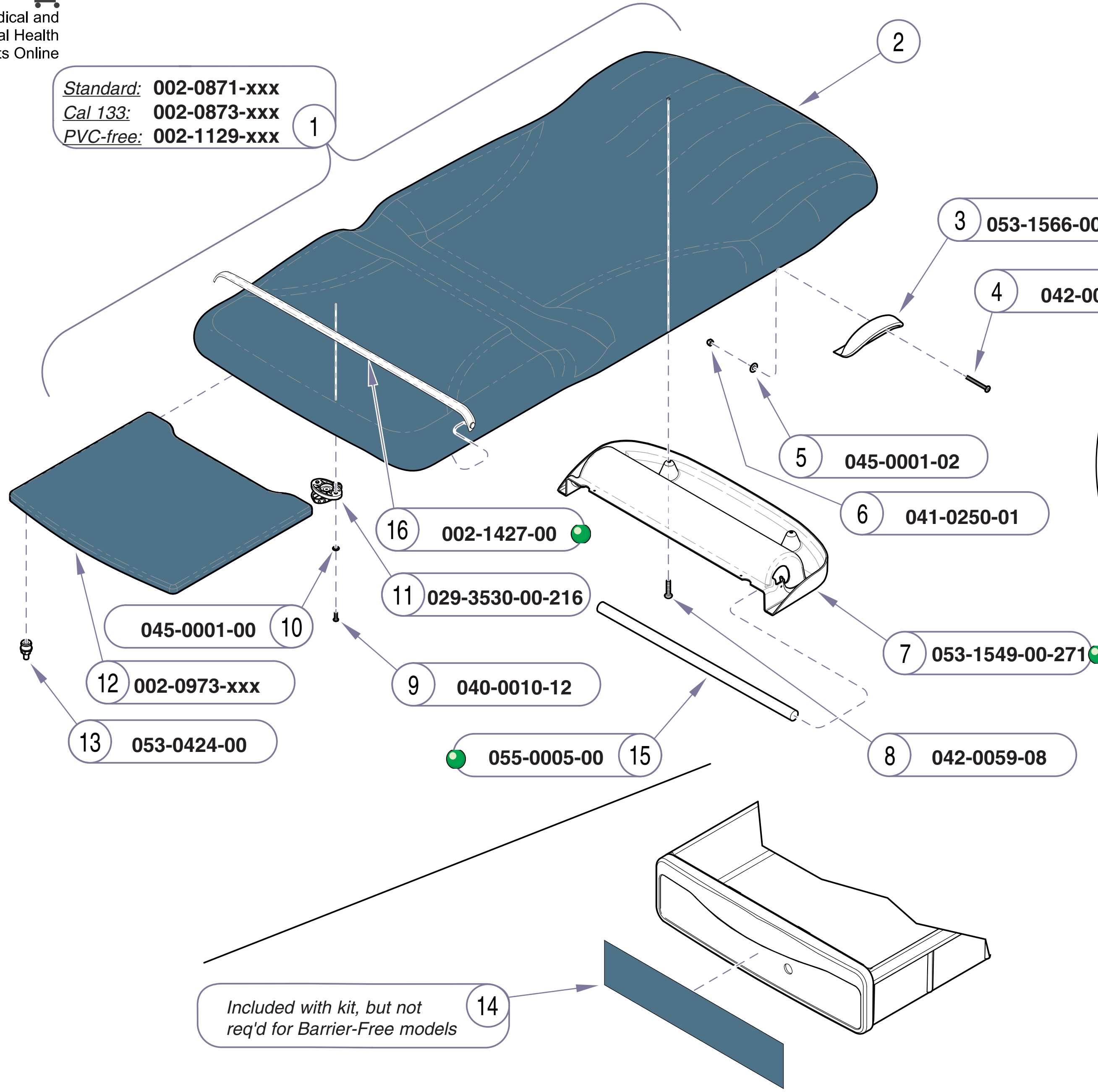
Refer To:
Color Selector .... www.midmark.com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2
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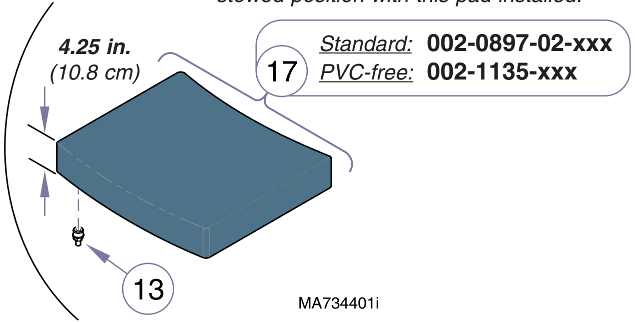
4 042-0059-12
5 045-0001-02
6 041-0250-01
7 053-1549-00-271
8 042-0059-08
9 040-0010-12
10 045-0001-00
11 029-3530-00-216
12 002-0973-xxx
13 053-0424-00
15 055-0005-00
16 002-1427-00
14
Included with kit, but not req'd for Barrier-Free models

MA705600i

Item #17 is a special order option.

***Note:** The footrest shelf will not slide into the stowed position with this pad installed.*


4.25 in.
(10.8 cm)
Standard: 002-0897-02-xxx
PVC-free: 002-1135-xxx
17
13

MA734401i

ATTENTION: Refer to *Color Selector* link for appropriate numbers to replace -xxx.

Item	Description	Qty.
1	Upholstery Set *(includes items 2 thru 14)*	1
2	• Seat/Back Upholstery	1
3	• Handle	2
4	• Bolt *(1/4-20 x 1.578")*	4
5	• Washer	4
6	• Nylock Nut	4
7	• Paper Roll Housing	1
8	• Screw *(10-24 x 5/8")*	4
9	• Screw	12
10	• Washer	12
11	• Locking Knob	6
12	• Footrest Pad - *standard* *[includes four glides (item #13)]*	1
13	• Footrest Glide	4
14	• Drawer Insert *(for MET models only)*	8
15	Dowel Rod	1
16	Tear Strap	1
17	Footrest Pad - *special (4.25 in. thick)* *[includes four glides (item #13)]*	1
18	Kit, Upholstery Packaging (002-1907-00) *(not shown)*	*1*

Always Specify Model & Serial Number

Models:	***222** (-015 thru -017)*	***223** (-015 & -016)*
Serial Numbers:	*All*	*All*

Upholstery - Ritter
(Seamless)

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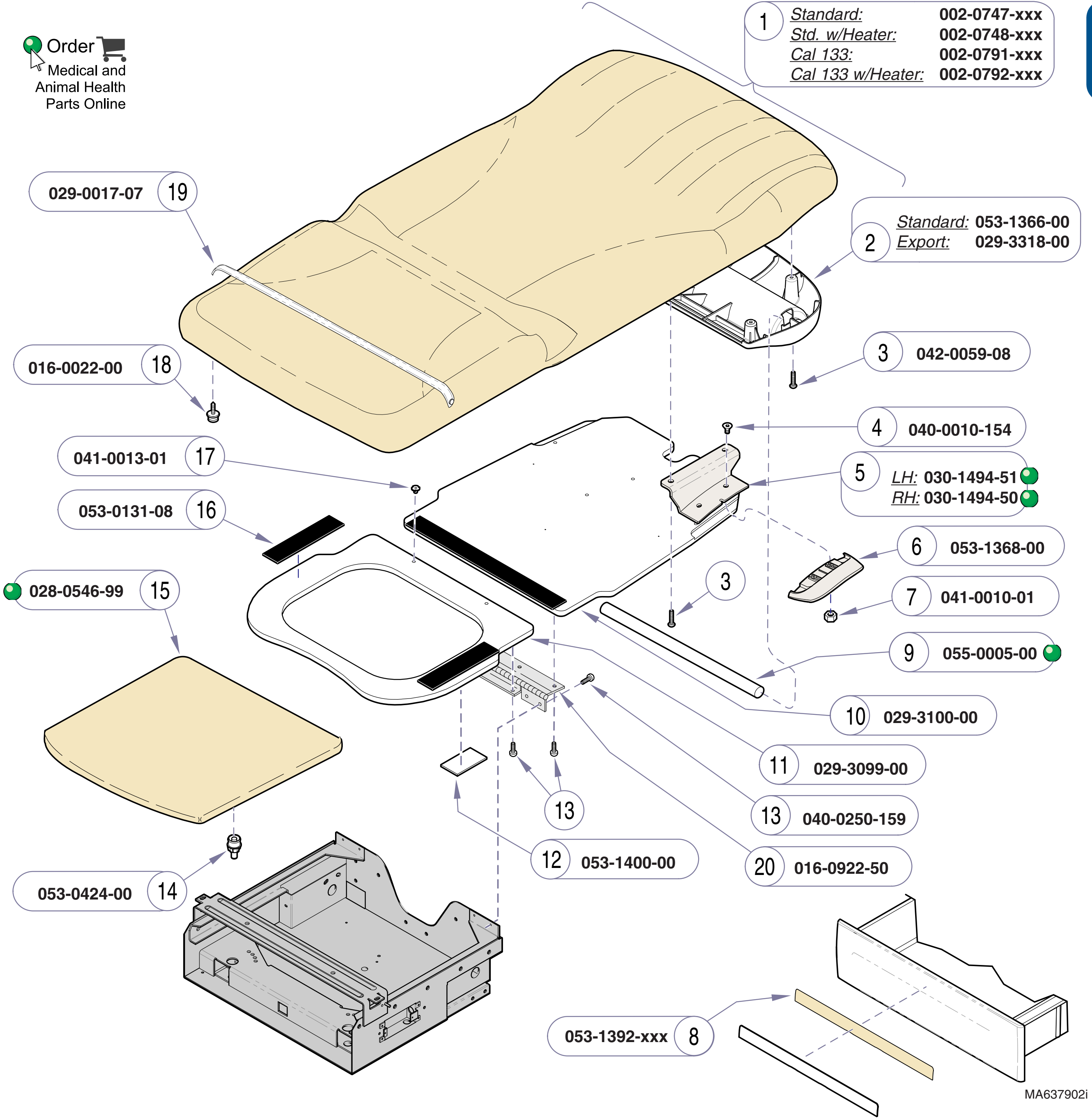
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19 029-0017-07
2
Standard: 053-1366-00
Export: 029-3318-00
18 016-0022-00
3 042-0059-08
4 040-0010-154
17 041-0013-01
5
LH: 030-1494-51
RH: 030-1494-50
16 053-0131-08
6 053-1368-00
3
15 028-0546-99
7 041-0010-01
9 055-0005-00
10 029-3100-00
11 029-3099-00
13
13 040-0250-159
12 053-1400-00
20 016-0922-50
14 053-0424-00
8 053-1392-xxx
MA637902i

ATTENTION: Refer to *Color Selector* link for appropriate numbers to replace -xxx.

Item	Description	Qty.
1	Upholstery Set *(incl. items 2 thru 8)*	1
2	• Paper Roll Holder - *Export used on 622/623 (-003 & -004) only*	1
3	• Screw *(1/4 x 20 x .78")*	8
4	• Screw *(#10- 32 x .43")*	4
5	• Grip Handle Bracket *(LH shown)*	1
6	• Grip Handle	2
7	• Nut *(#10-32)*	4
8	• Vinyl Drawer Insert	1
9	Paper Roll Dowel Rod	2
10	Back Mounting Frame *(includes item 16)*	1
11	Seat Mounting Frame *(includes item 16)*	1
12	Scuff Plate	2
13	Screw	4
14	Footrest Guide	4
15	Upholstered Footrest *(specify color)* *[includes four glides (item #14)]*	*1*
16	Velcro Hook *(2" x 9")*	2
17	Nutsert	11
18	Stud	2
19	Tear Straps Kit *(includes two straps)*	1
20	Hinge	1
21	Kit, Upholstery Packaging (002-1907-00) *(not shown)*	*1*

Always Specify Model & Serial Number

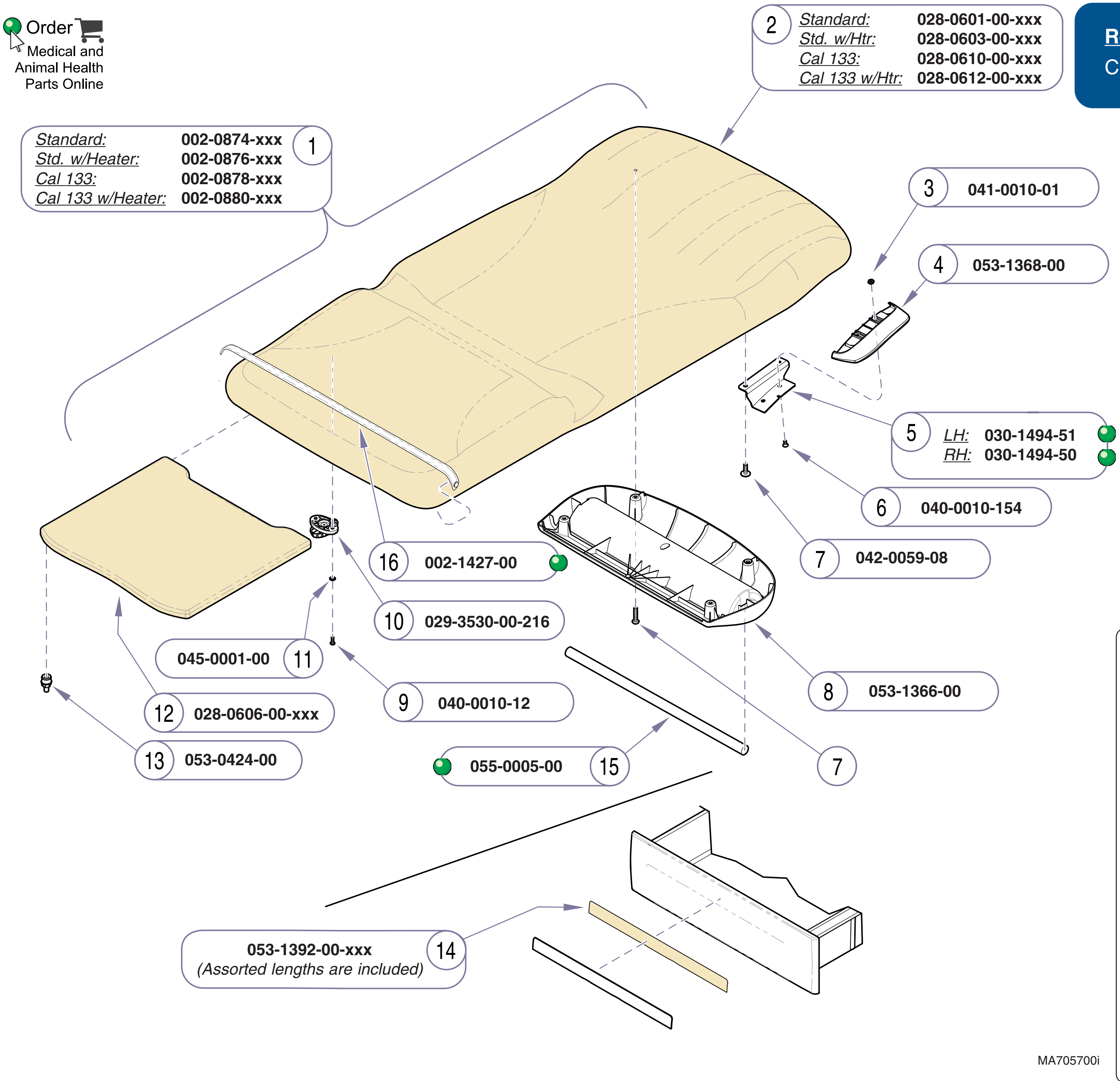
Upholstery - Midmark
(Premium)

Models:	***622** (-001 thru -006)*	***623** (-001 thru -006)*
Serial Numbers:	*All*	*All*

Order
Medical and
Animal Health
Parts Online

Refer To:

Color Selector .... www.midmark.com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7 042-0059-08
16 002-1427-00
10 029-3530-00-216
045-0001-00 11
12 028-0606-00-xxx
9 040-0010-12
8 053-1366-00
13 053-0424-00
055-0005-00 15
7
053-1392-00-xxx
(Assorted lengths are included) 14
MA705700i

ATTENTION: Refer to *Color Selector* link for appropriate numbers to replace -xxx.

Item	Description	Qty.
1	Upholstery Set *(includes items 2 thru 14)*	1
2	• Seat/Back Upholstery	1
3	• Nut	4
4	• Handle	2
5	• Handle Bracket	2
6	• Screw	4
7	• Screw *(10-24 x 5/8)*	8
8	• Paper Roll Housing	1
9	• Screw	12
10	• Locking Knob	6
11	• Washer	12
12	• Footrest Pad *[includes four glides (item #13)]*	*1*
13	• • Footrest Glide	4
14	• Vinyl Drawer Insert	6
15	Dowel Rod	1
16	Tear Strap	1
17	Kit, Upholstery Packaging (002-1907-00) *(not shown)*	*1*

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***622** (-007 & -008)* *All*	***623** (-007 thru -011)* *All*

Upholstery - Midmark
(Premium)

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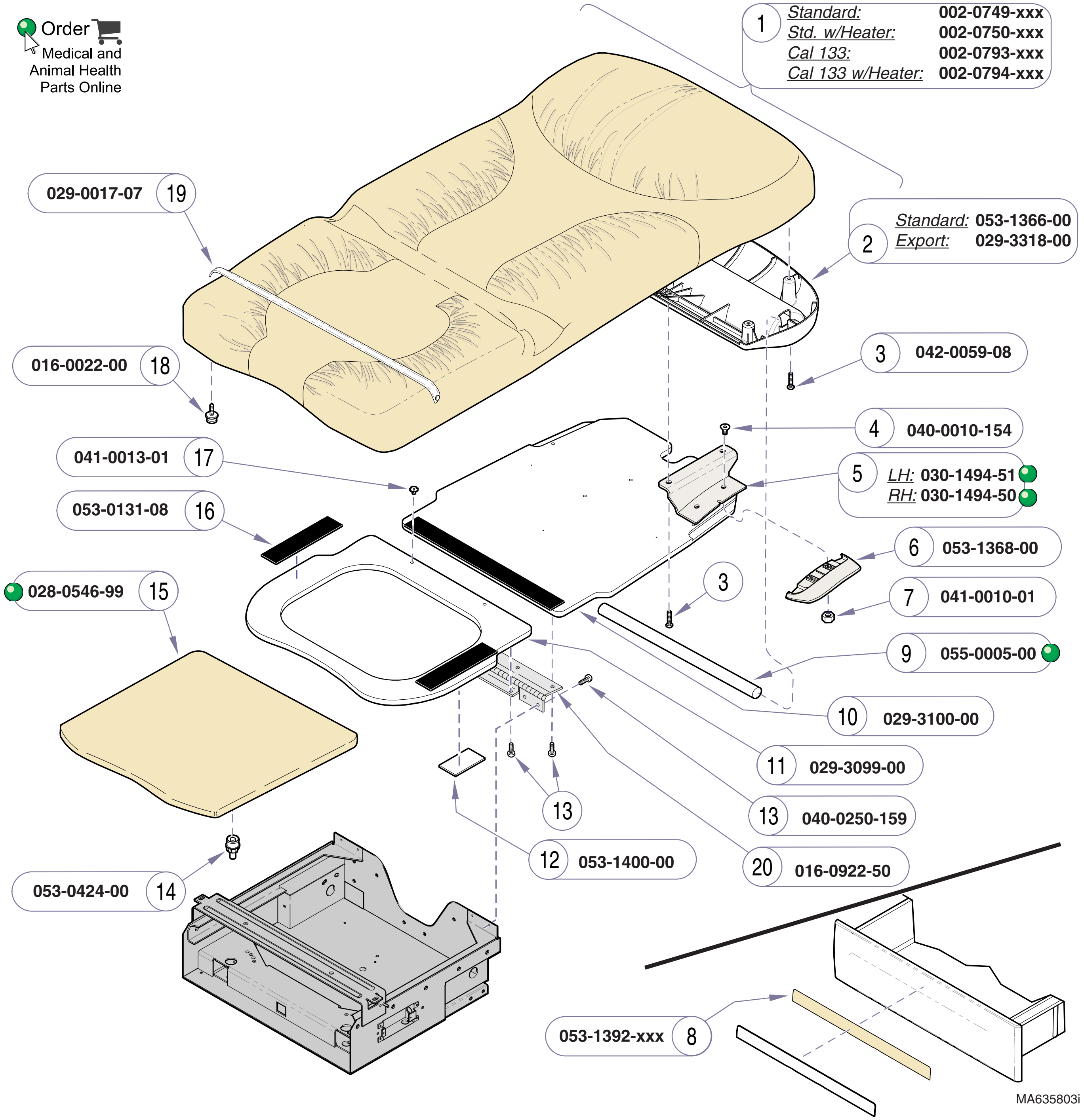
Refer To:
Color Selector .... www.midmark.com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Cal 133 w/Heater: 002-0794-xxx
029-0017-07 19
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Export: 029-3318-00
016-0022-00 18
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041-0013-01 17
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RH: 030-1494-50
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11 029-3099-00
13
13 040-0250-159
12 053-1400-00
20 016-0922-50
053-0424-00 14
053-1392-xxx 8
MA635803i

ATTENTION: Refer to *Color Selector* link for appropriate numbers to replace -xxx.

Item	Description	Qty.
1	Upholstery Set *(incl. items 2 thru 7)*	1
2	• Paper Roll Holder - *Export used on 622/623 (-003 & -004) only*	1
3	• Screw *(1/4 x 20 x .78")*	8
4	• Screw *(#10- 32 x .43")*	4
5	• Grip Handle Bracket *(LH shown)*	1
6	• Grip Handle	2
7	• Nut *(#10-32)*	4
8	• Vinyl Drawer Insert	1
9	Paper Roll Dowel Rod	2
10	Back Mounting Frame *(includes item 16)*	1
11	Seat Mounting Frame *(includes item 16)*	1
12	Scuff Plate	2
13	Screw	4
14	Footrest Guide	4
15	Upholstered Footrest *(specify color)* *[includes four glides (item #14)]*	*1*
16	Velcro Hook *(2" x 9")*	2
17	Nutsert	11
18	Stud	2
19	Tear Strap Kit *(includes two straps)*	1
20	Hinge	1
21	Kit, Upholstery Packaging (002-1907-00) *(not shown)*	*1*

Always Specify Model & Serial Number

Upholstery - Midmark
(Ultra-Premium)

Models:	***622** (-001 thru -006)*	***623** (-001 thru -006)*
Serial Numbers:	*All*	*All*

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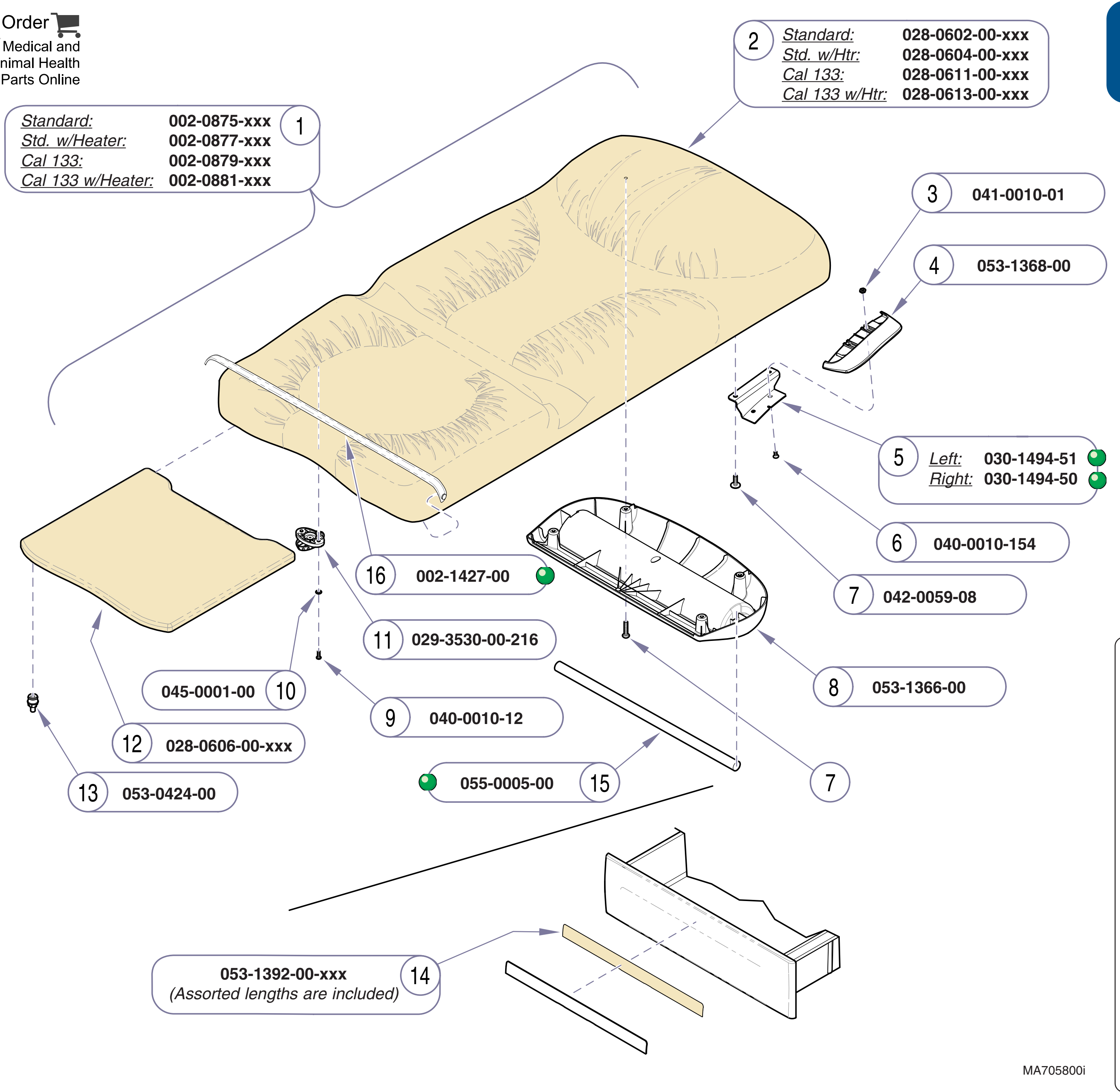
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13 053-0424-00
14 053-1392-00-xxx
(Assorted lengths are included)
15 055-0005-00
16 002-1427-00
MA705800i

ATTENTION: Refer to *Color Selector* link for appropriate numbers to replace -xxx.

Item	Description	Qty.
1	Upholstery Set *(includes items 2 thru 14)*	1
2	• Seat/Back Upholstery	1
3	• Nut	4
4	• Handle	2
5	• Handle Bracket	2
6	• Screw	4
7	• Screw *(10-24 x 5/8)*	8
8	• Paper Roll Housing	1
9	• Screw	12
10	• Washer	12
11	• Locking Knob	6
12	• Footrest Pad *[includes four glides (item #13)]*	*1*
13	• • Footrest Glide	4
14	• Vinyl Drawer Insert	6
15	Dowel Rod	1
16	Tear Strap	1
17	Kit, Upholstery Packaging (002-1907-00) *(not shown)*	*1*

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***622** (-007 & -008)* *All*	***623** (-007 thru -011)* *All*

Upholstery - Midmark
(Ultra-Premium)

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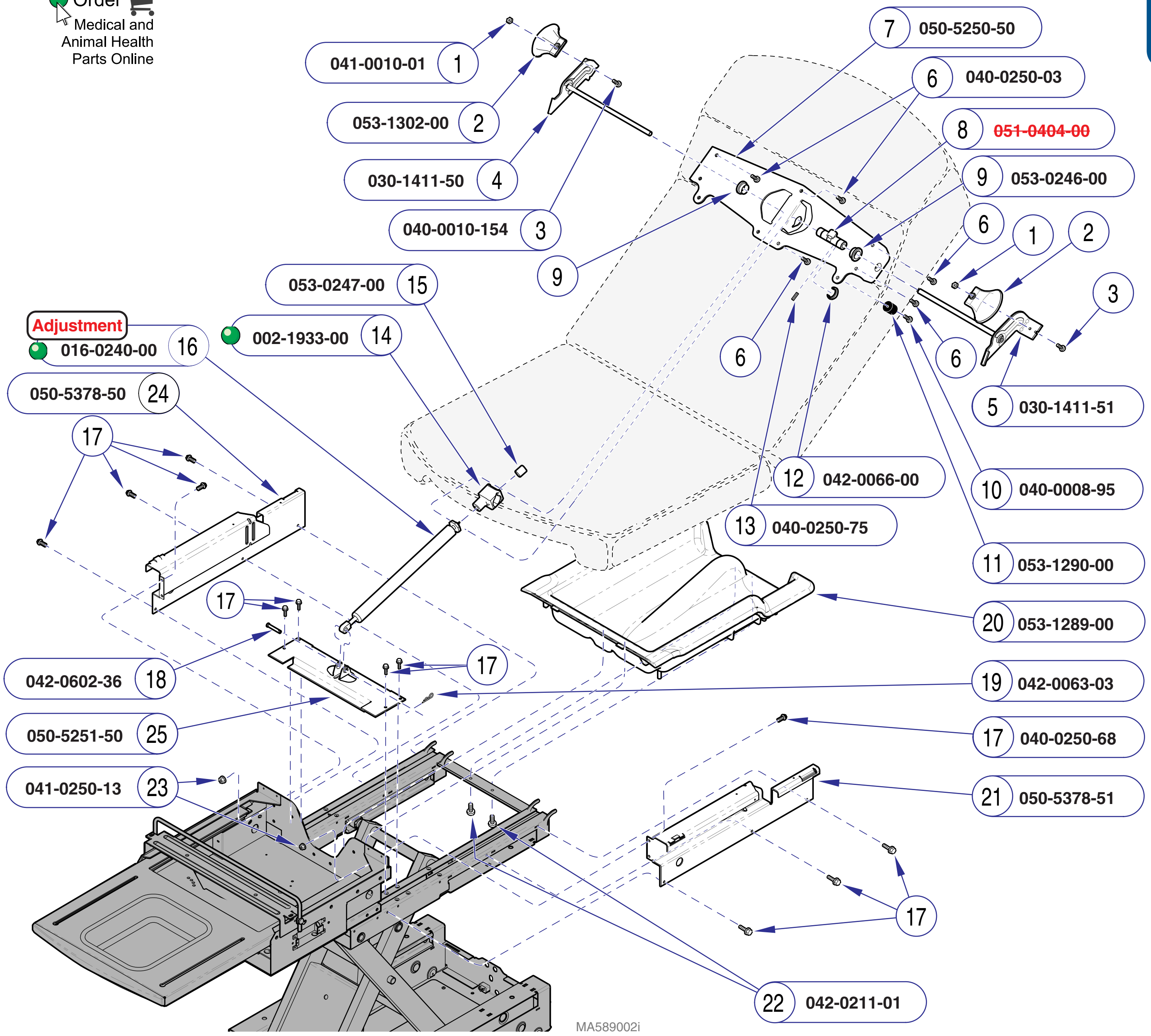
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050-5378-50 24
17
17
042-0602-36 18
17
050-5251-50 25
041-0250-13 23
7 050-5250-50
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8 ~~051-0404-00~~
9 053-0246-00
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1
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3
6
6
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20 053-1289-00
19 042-0063-03
17 040-0250-68
21 050-5378-51
17
22 042-0211-01
MA589002i

Item	Description	Qty.
1	Nut	2
2	Actuator Release Handle	2
3	Screw *(10-32 x 7/16")*	1
4	R.H. Back Release Weldment	1
5	L.H. Back Release Weldment	1
6	Screw *(1/4-20 x 7/8")*	4
7	Release Support Yoke Back	1
8	Cam	1
9	Back Pivot Bearing	2
10	Wood Screw	2
11	Stem Bumper	2
12	Crescent Ring	2
13	Set Screw	2
14	Hi-lo Actuator Cap Kit *(incl. item 15)*	1
15	• Plunger	1
16	Gas Cylinder	1
17	Screw *(1/4-20 x Type F)*	16
18	Clevis Pin	1
19	Rue Ring	1
20	Top Cover	1
21	L.H. Side Support	1
22	Screw *(5mm x 20mm)*	7
23	Lock Nut	4
24	R.H. Side Support	1
25	Release Support Yoke	1

Always Specify Model & Serial Number

Models:	***222*** ***(-001 thru -010)***		***622*** ***(-001 & -002)***
Serial Numbers:	*RG1000 thru RG1894*	*RH1000 thru RH2131*	*SJ1000 thru SJ1008*
	RJ1000 thru RJ1419	*RK1000 thru RK3589*	*SK1000 thru SK1029*
	RL1000 thru RL1068	*RM1000 thru RM1028*	

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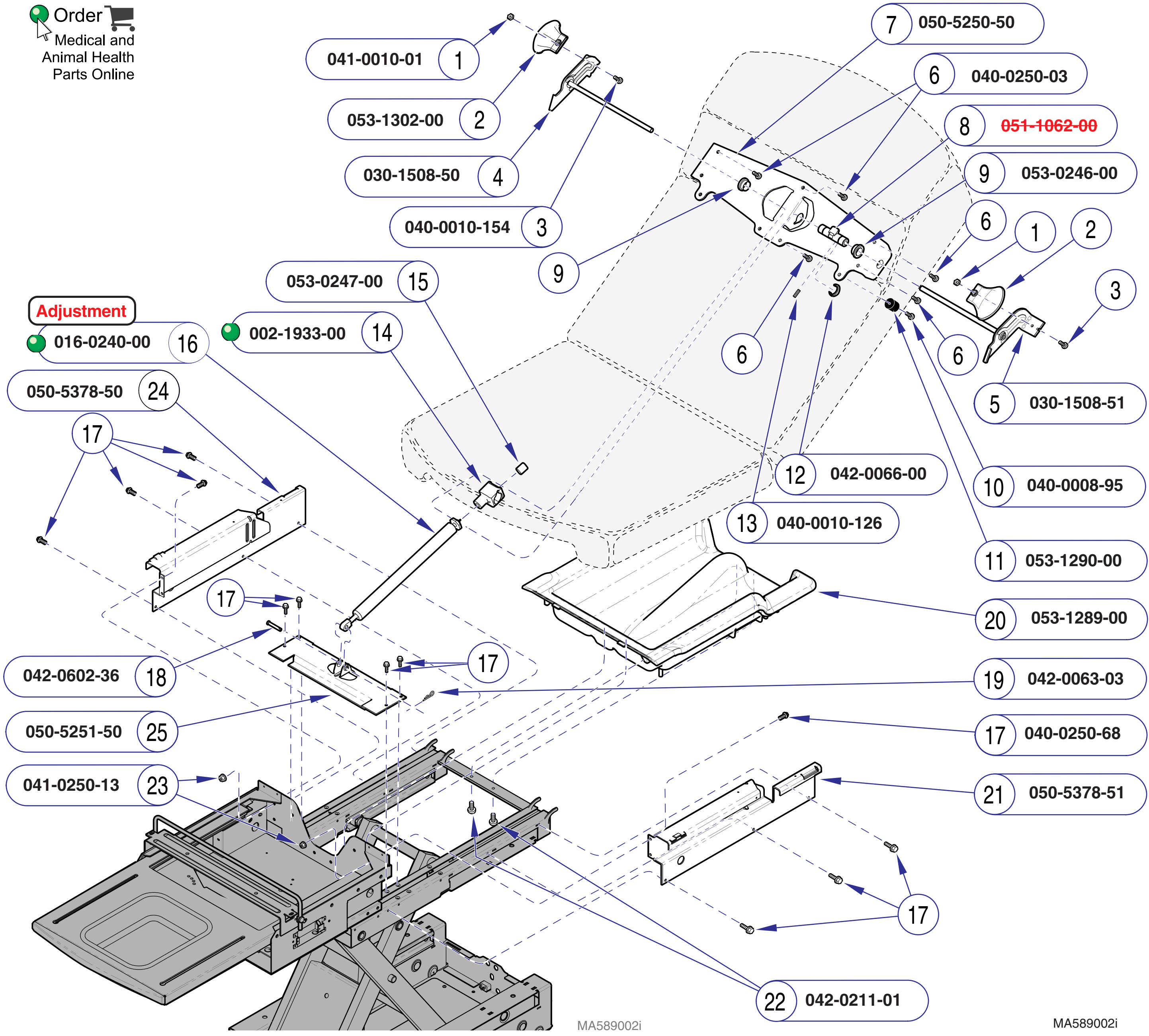
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3
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053-0247-00 15
Adjustment
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17 040-0250-68
041-0250-13 23
21 050-5378-51
17
22 042-0211-01
MA589002i
MA589002i

Item	Description	Qty.
1	Nut	2
2	Actuator Release Handle	2
3	Screw *(10-32 x 7/16")*	1
4	R.H. Back Release Weldment	1
5	L.H. Back Release Weldment	1
6	Screw *(1/4-20 x 7/8")*	4
7	Release Support Yoke Back	1
8	Cam	1
9	Back Pivot Bearing	2
10	Wood Screw	2
11	Stem Bumper	2
12	Crescent Ring	2
13	Set Screw	2
14	Hi-lo Actuator Cap Kit *(incl. item 15)*	1
15	• Plunger	1
16	Gas Cylinder	1
17	Screw *(1/4-20 x Type F)*	16
18	Clevis Pin	1
19	Rue Ring	1
20	Top Cover	1
21	L.H. Side Support	1
22	Screw *(5mm x 20mm)*	3
23	Lock Nut	4
24	R.H. Side Support	1
25	Release Support Yoke	1

Always Specify Model & Serial Number

Models:	***222*** ***(-001 thru -014)***		***622*** ***(-001 thru -006)***
Serial Numbers:	*RG1895 thru present*	*RK3590 thru present*	*SJ1009 thru present*
	RJ1420 thru present	*RM1029 thru present*	*SK1030 thru present*
	RL1069 thru present	*V2200 thru V216996*	*V2200 thru V216996*
	RH2132 thru present		

Manual Back Components

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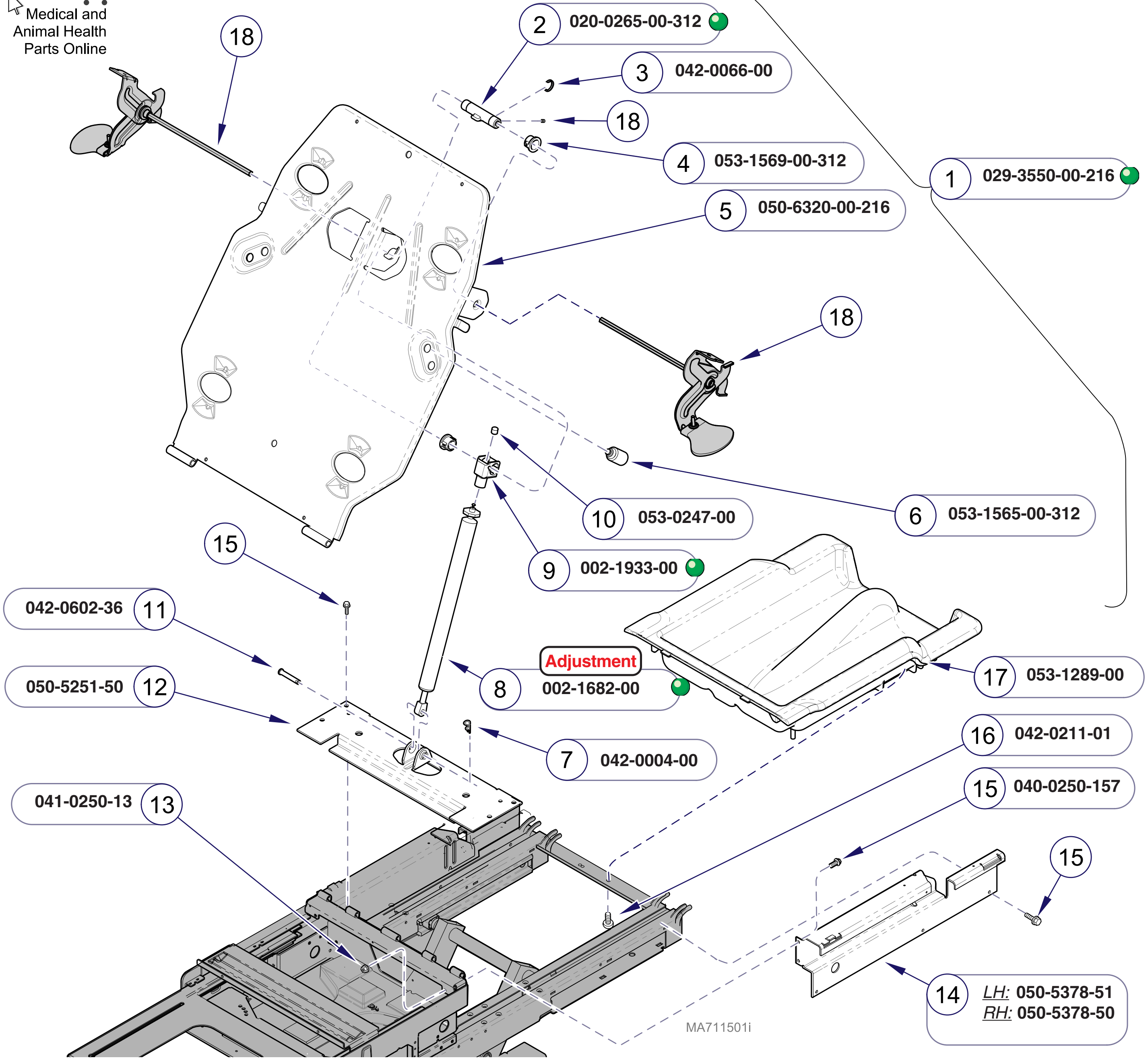
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042-0602-36 11
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8 002-1682-00
17 053-1289-00
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16 042-0211-01
15 040-0250-157
041-0250-13 13
15
14 LH: 050-5378-51
RH: 050-5378-50
MA711501i

Item	Description	Qty.
1	Manual Back Assembly *(incl. items 2 thru 12)*	1
2	• Cam	1
3	• Crescent Ring	2
4	• Back Pivot Bearing	2
5	• Back Mounting Frame	1
6	• Back Rest Bumper	2
7	• Hitch Pin	1
8	• Gas Spring *(incl. items 16 & 17)*	1
9	• Hi-lo Actuator Cap Kit *(incl. item 10)*	1
10	• • Plunger	1
11	• Clevis Pin	1
12	• Release Support Yoke	1
13	Lock Nut	4
14	Side Support *(LH shown)*	2
15	Screw *(1/4-20 x Type F)*	16
16	Screw *(5mm x 20mm)*	3
17	Top Cover	1
18	Refer to: *"Backrest Handles"*	Ref

Always Specify Model & Serial Number

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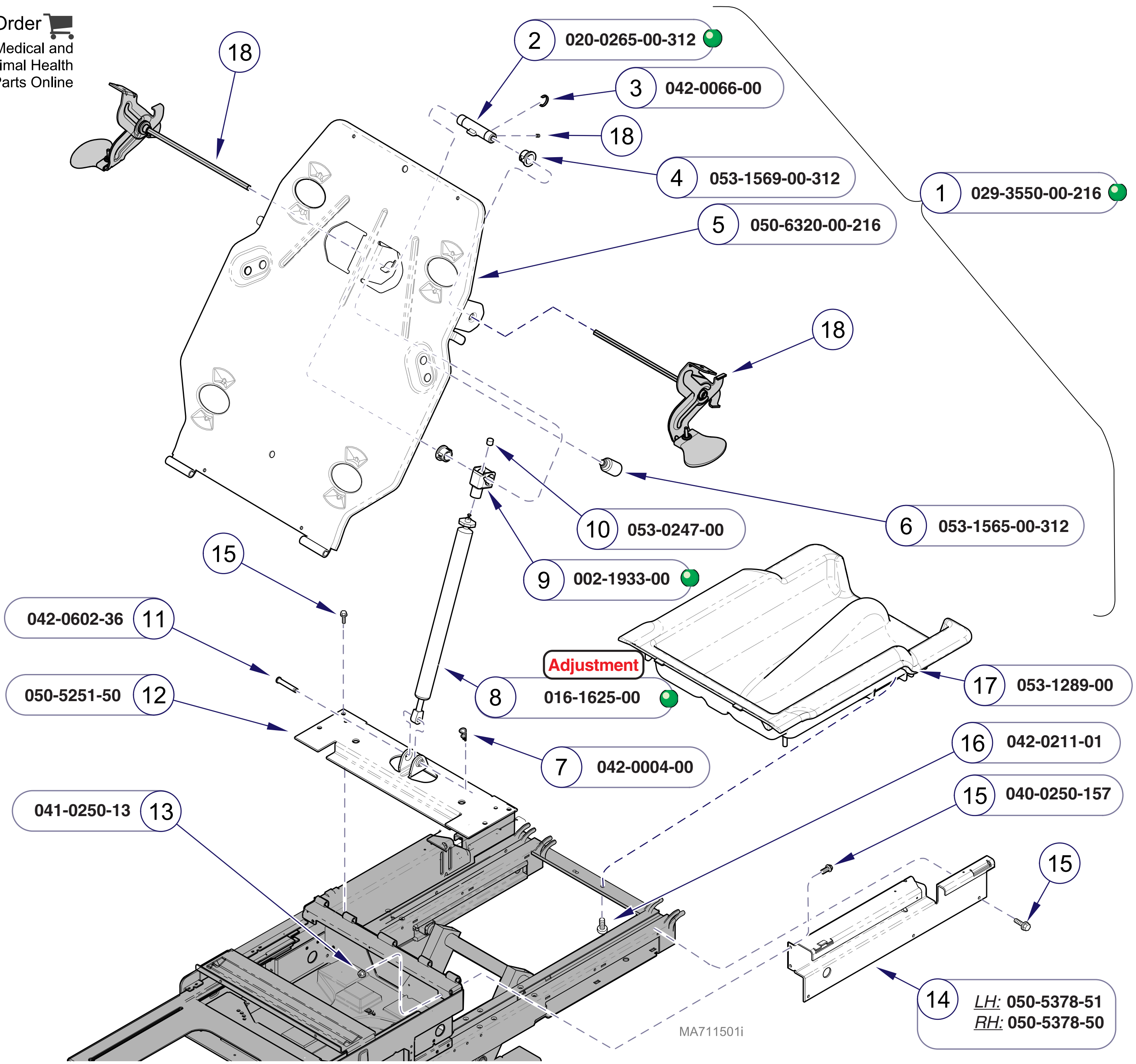
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15 040-0250-157
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14 LH: 050-5378-51
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MA711501i

Item	Description	Qty.
1	Manual Back Assembly *(incl. items 2 thru 12)*	1
2	• Cam	1
3	• Crescent Ring	2
4	• Back Pivot Bearing	2
5	• Back Mounting Frame	1
6	• Back Rest Bumper	2
7	• Hitch Pin	1
8	• Gas Spring	1
9	• Hi-lo Actuator Cap Kit *(incl. item 10)*	1
10	• • Plunger	1
11	• Clevis Pin	1
12	• Release Support Yoke	1
13	Lock Nut	4
14	Side Support *(LH shown)*	2
15	Screw *(1/4-20 x Type F)*	16
16	Screw *(5mm x 20mm)*	3
17	Top Cover	1
18	Refer to: *"Backrest Handles"*	Ref

Always Specify Model & Serial Number

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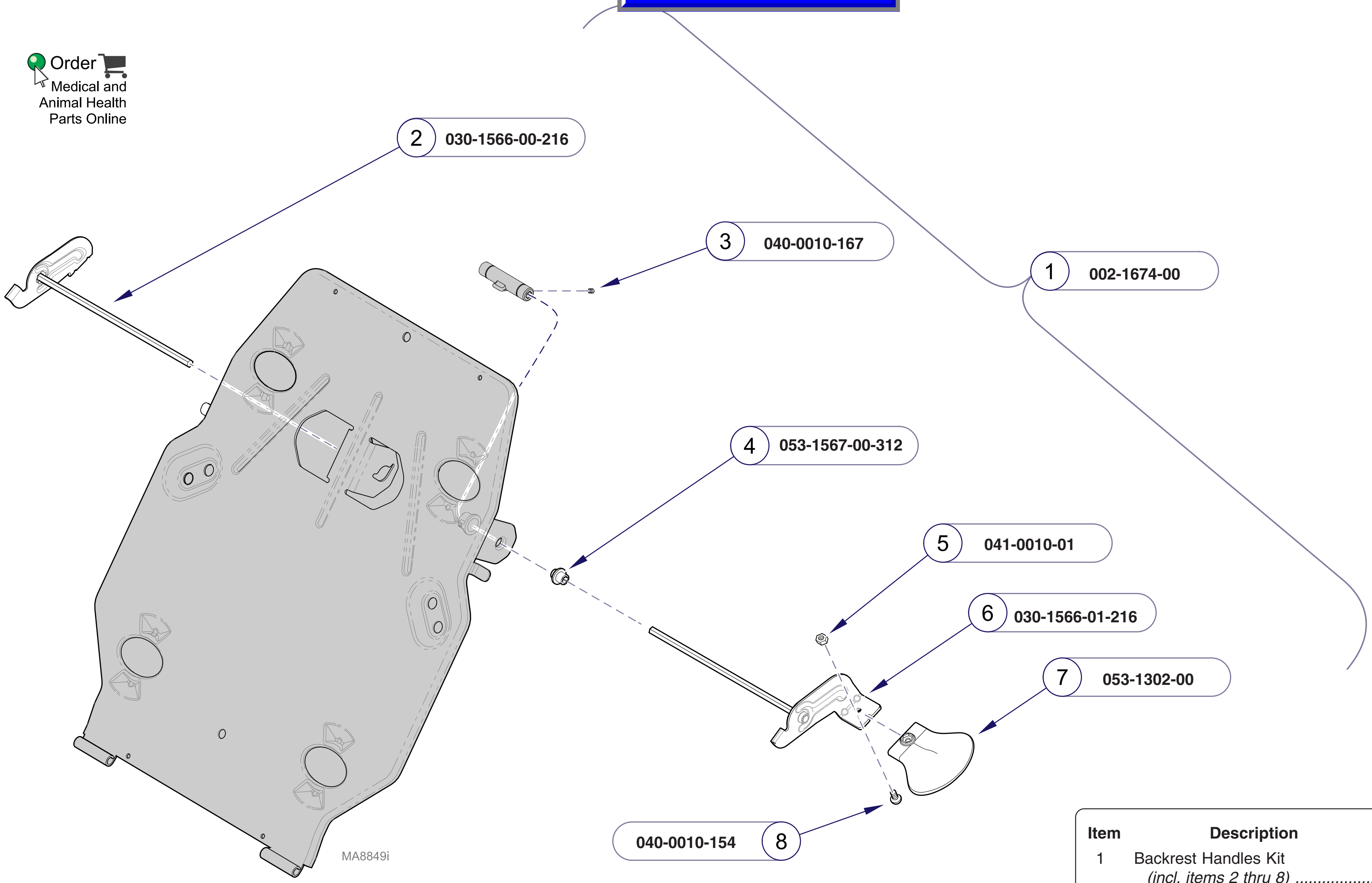
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7 053-1302-00
040-0010-154 8
MA8849i

Item	Description	Qty.
1	Backrest Handles Kit *(incl. items 2 thru 8)*	1
2	• R.H. Back Release Weldment	1
3	• Set Screw	2
4	• Release Rod Bushing	2
5	• Nut *(#10-32)*	2
6	• L.H. Back Release Weldment	1
7	• Actuator Release Handle	2
8	• Screw *(#10-32 X 7/16 flat head phillips)*	2

Always Specify Model & Serial Number

Backrest Handles

Models:	***222*** *(-015 thru -017)*	***622*** *(-007 & -008)*
Serial Numbers:	*V216996 thru present*	*V216996 thru present*

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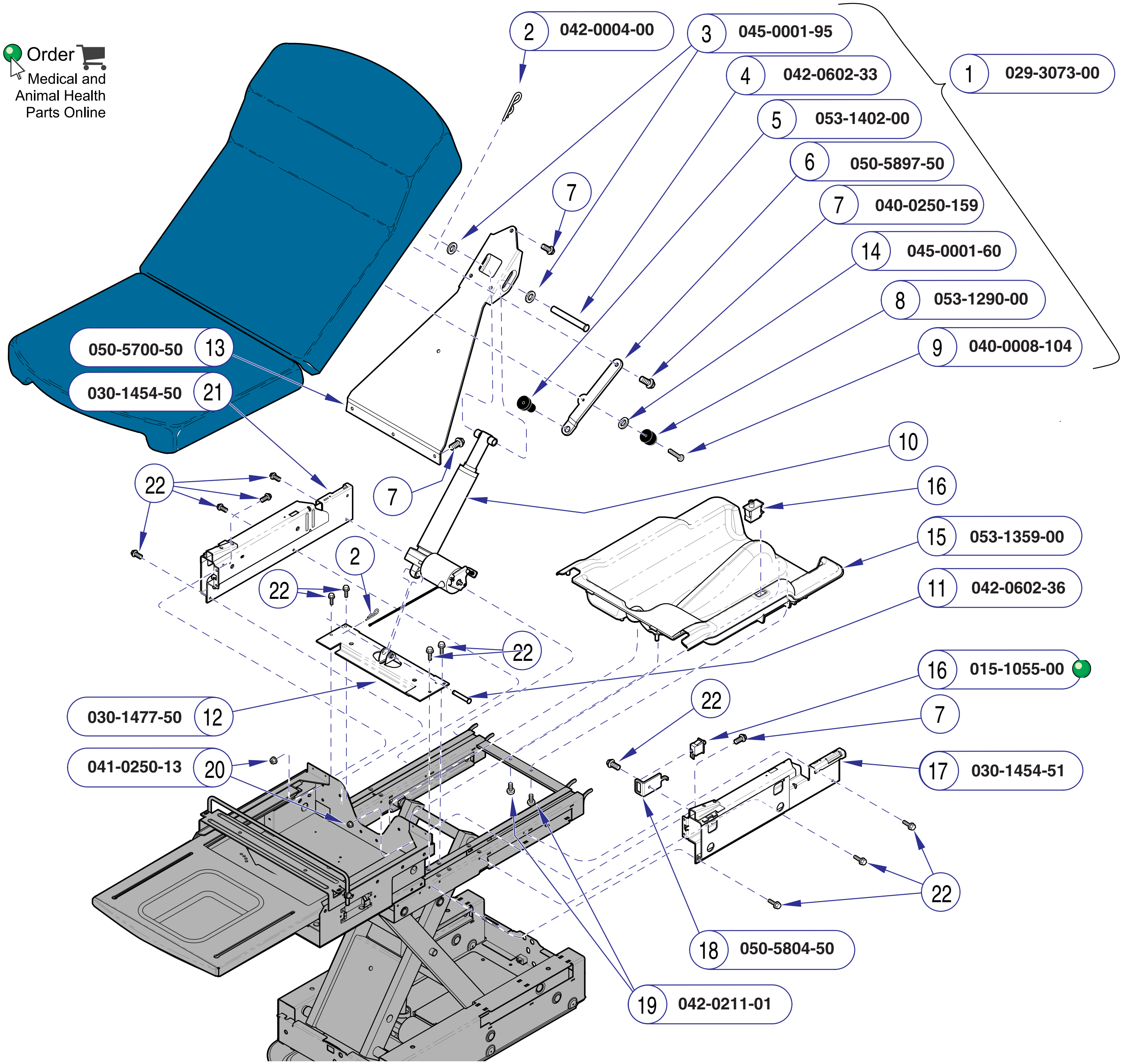
** multiple pages due to model / serial # break*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050-5700-50 13
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041-0250-13 20
17 030-1454-51
22
18 050-5804-50
19 042-0211-01

MA637000i

Item	Description	Qty.
1	Power Back Assembly .... *(includes items 2 thru 14)*	1
2	• Hitch Pin Clip	2
3	• Washer	2
4	• Clevis Pin	1
5	• Stem Bumper	1
6	• Limit Bumper Bracket *(leftside only)*	1
7	• Screw *(1/4-20 x .87")*	6
8	• Recess Bumper	3
9	• Screw *(#8 x 1")*	3
10	• Refer to: *"Back Actuator"*	Ref
11	• Clevis Pin	1
12	• Back Actuator Support	1
13	• Power Back Pivot Mount	1
14	• Spacer Washer *(right side only)*	1
15	Top Cover	1
16	Limit Switch	2
17	L.H. Side Support	1
18	Switch Bracket	1
19	Screw *(M5 x 20mm)*	3
20	Flange Nut *(1/4-20)*	4
21	R.H. Side Support	1
22	Screw *(1/4-20 x .5")*	19

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***223*** ***(-001 thru -014)*** *All*	***623*** ***(-001 thru -006)*** *All*

Power Back Components

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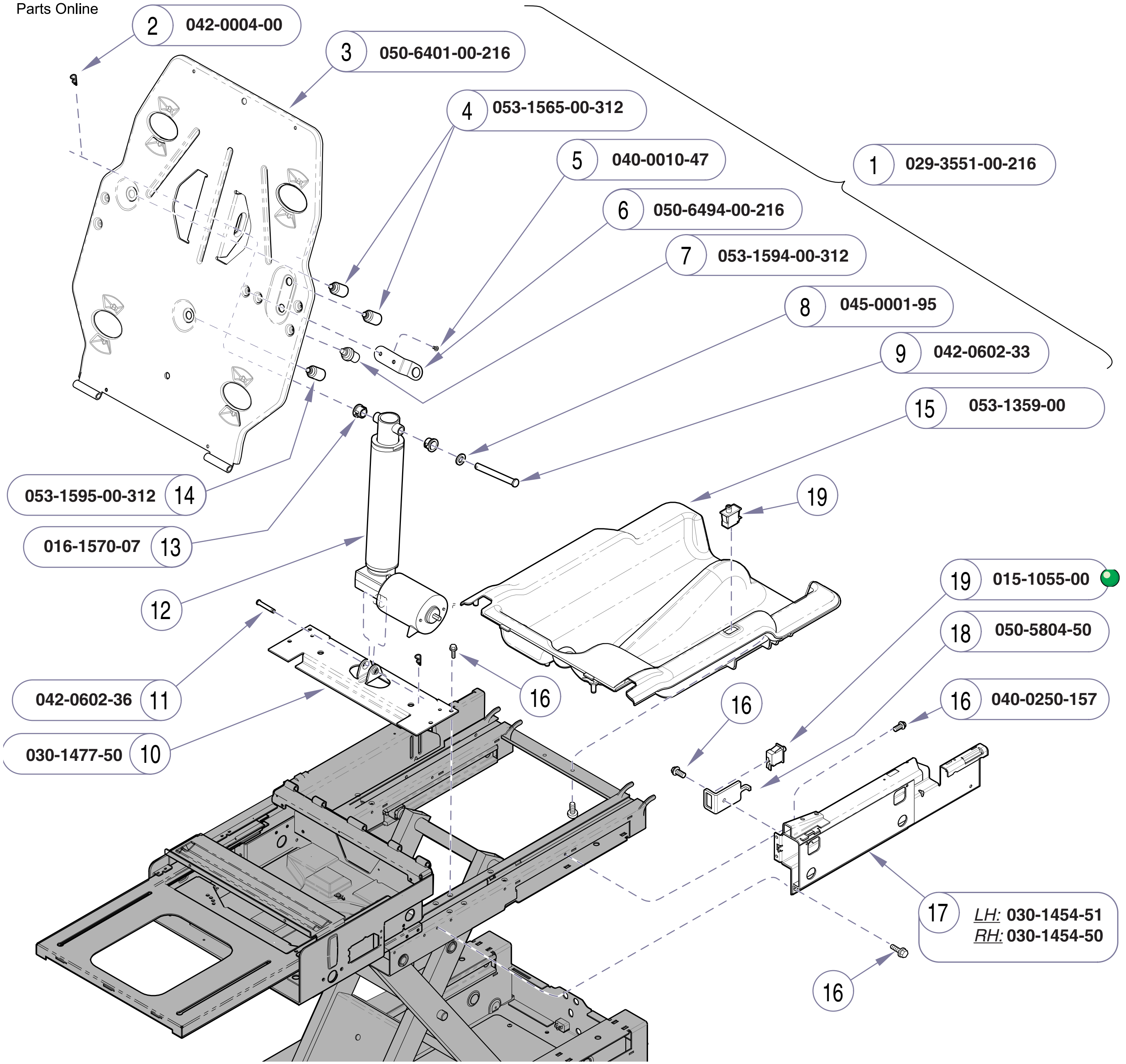
Back Actuator E-13*
** multiple pages due to model / serial # break*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16 040-0250-157
030-1477-50 10
17 LH: 030-1454-51
RH: 030-1454-50
16
MA712900i

Item	Description	Qty.
1	Power Back Assembly *(includes items 2 thru 13)*	1
2	• Hitch Pin Clip	1
3	• Back Mounting Frame	1
4	• Back Rest Bumper	2
5	• Screw *(#10-24 x 3/8')*	2
6	• Limit Bumper Bracket *(leftside only)*	1
7	• Limit Switch Bumper	1
8	• Washer *(1/2')*	2
9	• Clevis Pin	1
10	• Back Actuator Support	1
11	• Clevis Pin	1
12	• Refer to: *"Back Actuator"*	Ref
13	• DP4 Bearing	2
14	• Actuator Stop Bumper	1
15	Top Cover	1
16	Screw *(1/4"-20 x .5")*	19
17	Side Support *(LH shown)*	2
18	Limit Switch Bracket	1
19	Limit Switch	2

Always Specify Model & Serial Number

Power Back Components

Models:	***223** (-015 thru -016)*	***623** (-007 thru -011)*
Serial Numbers:	*All*	*All*

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Actuator Motor Test B-12
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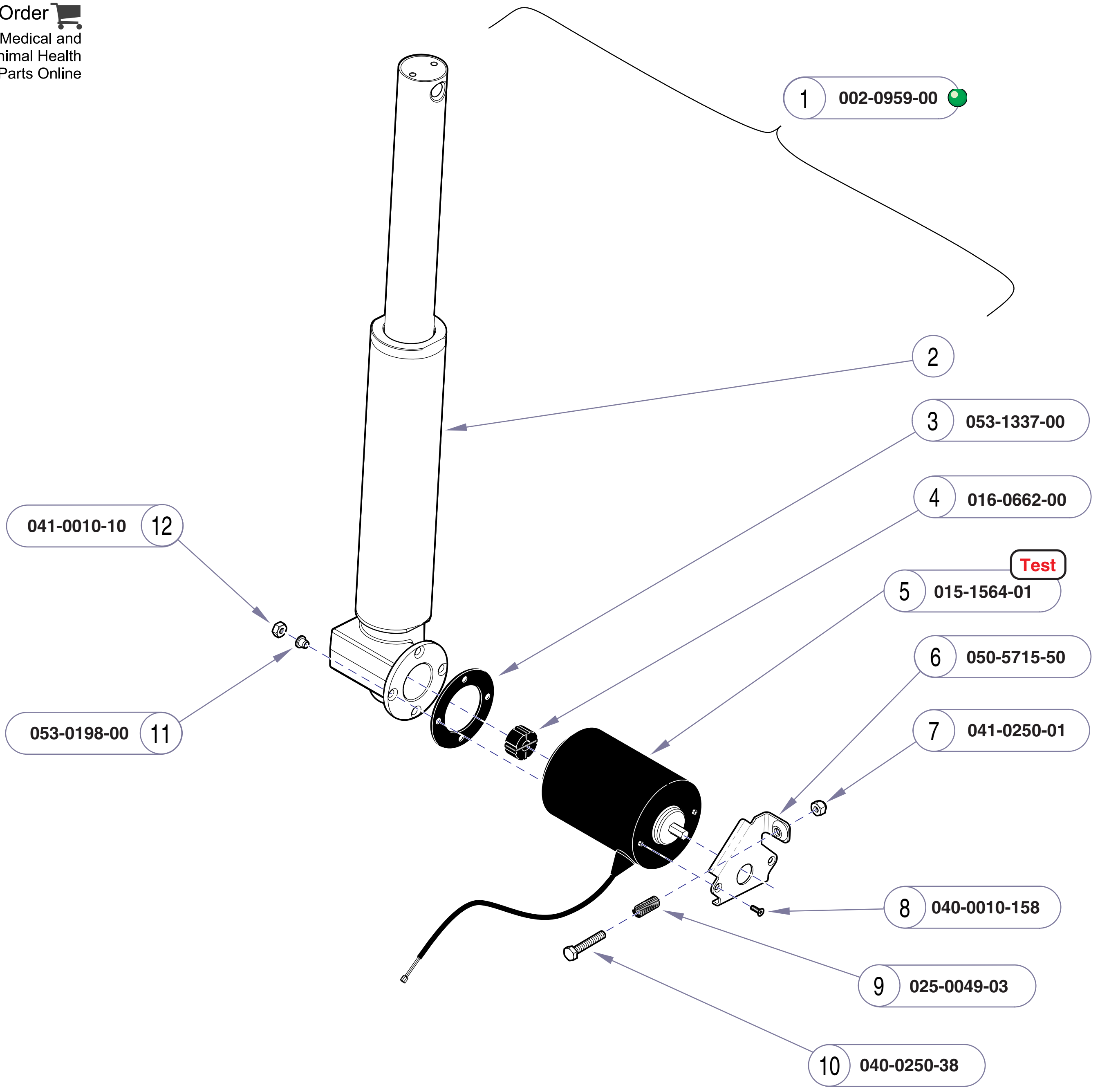
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9 025-0049-03
10 040-0250-38
041-0010-10 12
053-0198-00 11

MA624201i

Item	Description	Qty.
1	Back Actuator Assembly Kit *(includes items 1 thru 12)*	1
2	• Actuator *(not available seperately)*	Ref.
3	• Motor Insulater	1
4	• Motor Coupler	1
5	• Actuator Motor	1
6	• Motor Bracket	1
7	• Nut *(1/4"-20)*	1
8	• Screw *(#10 x 32 x .25")*	2
9	• Compression Spring	1
10	• Screw *(1/4" -20 x .5")*	1
11	• Shoulder Washer	2
12	• Nut *(#10-32)*	2

Always Specify Model & Serial Number

Models: Serial Numbers:	**223** (all) All	**623** (all) All

Back Actuator

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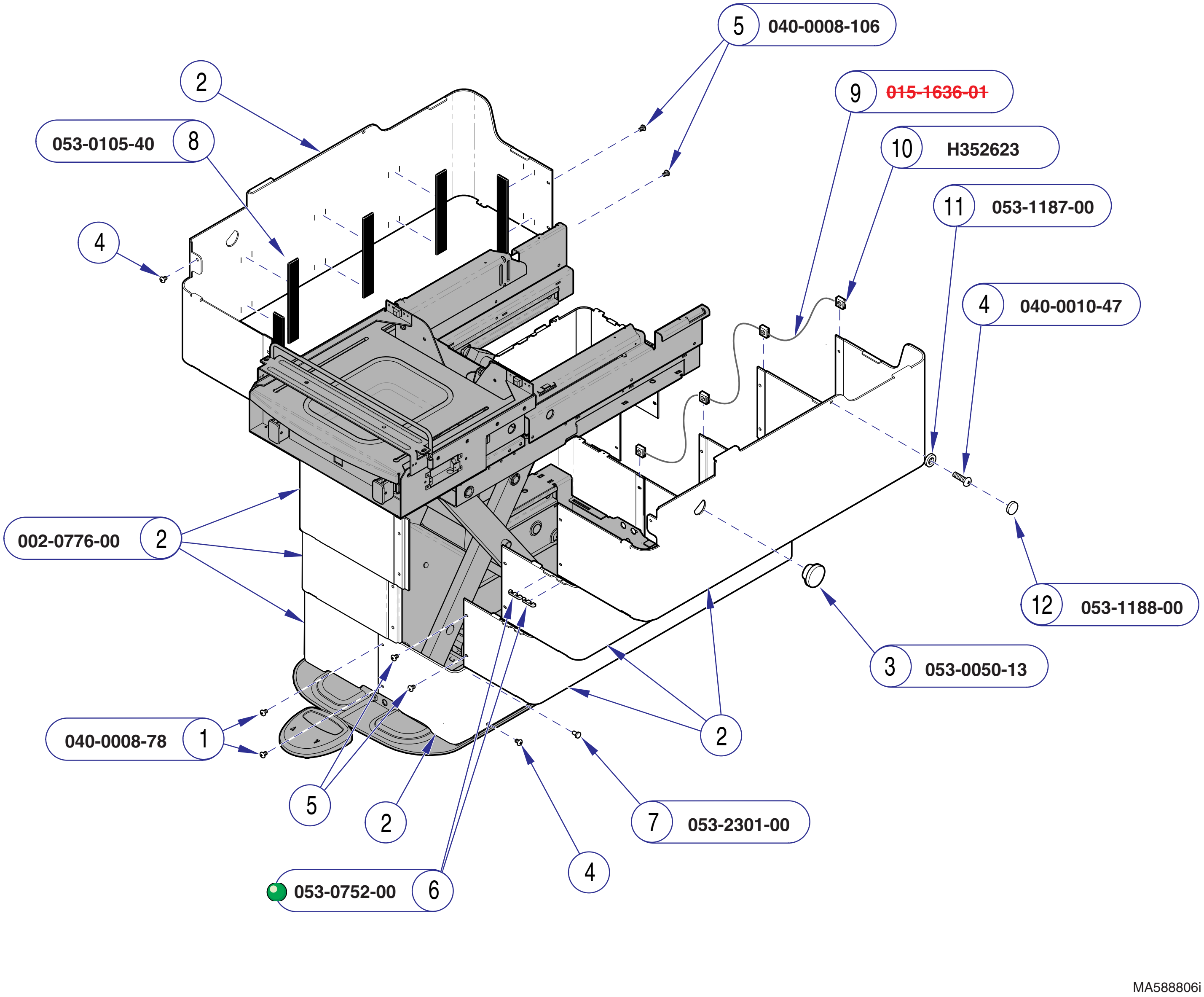
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040-0008-78 1
2
5
2
7 053-2301-00
4
053-0752-00 6
MA588806i

NOTE:
Shroud assemblies are only available as a complete set for the serial numbers listed on this page.

Item	Description	Qty.
1	Screw	12
2	Shroud Assembly *(See note above)*	1
3	Hole Plug	2
4	Screw *(10-24 x 3/8")*	10
5	Screw *(10-24 x 3/8")*	12
6	Snap-on Guide	36
7	Stem Bumper	32
8	Velcro Loop *(1" x 7")*	6
9	Braided Ground Wire	1
10	Tinnerman Clip	3
11	Screw Cover Base	2
12	Screw Cover	2

Always Specify Model & Serial Number

Models: ***222** (-001 thru -010)*
Serial Numbers:
RG1000 thru RG1530
RJ1000 thru RJ1312
RK1000 thru RK2334
RM1000 thru RM1015
RH1000 thru RH1820
RH1831 & RH1832
RL1000 thru RL1060

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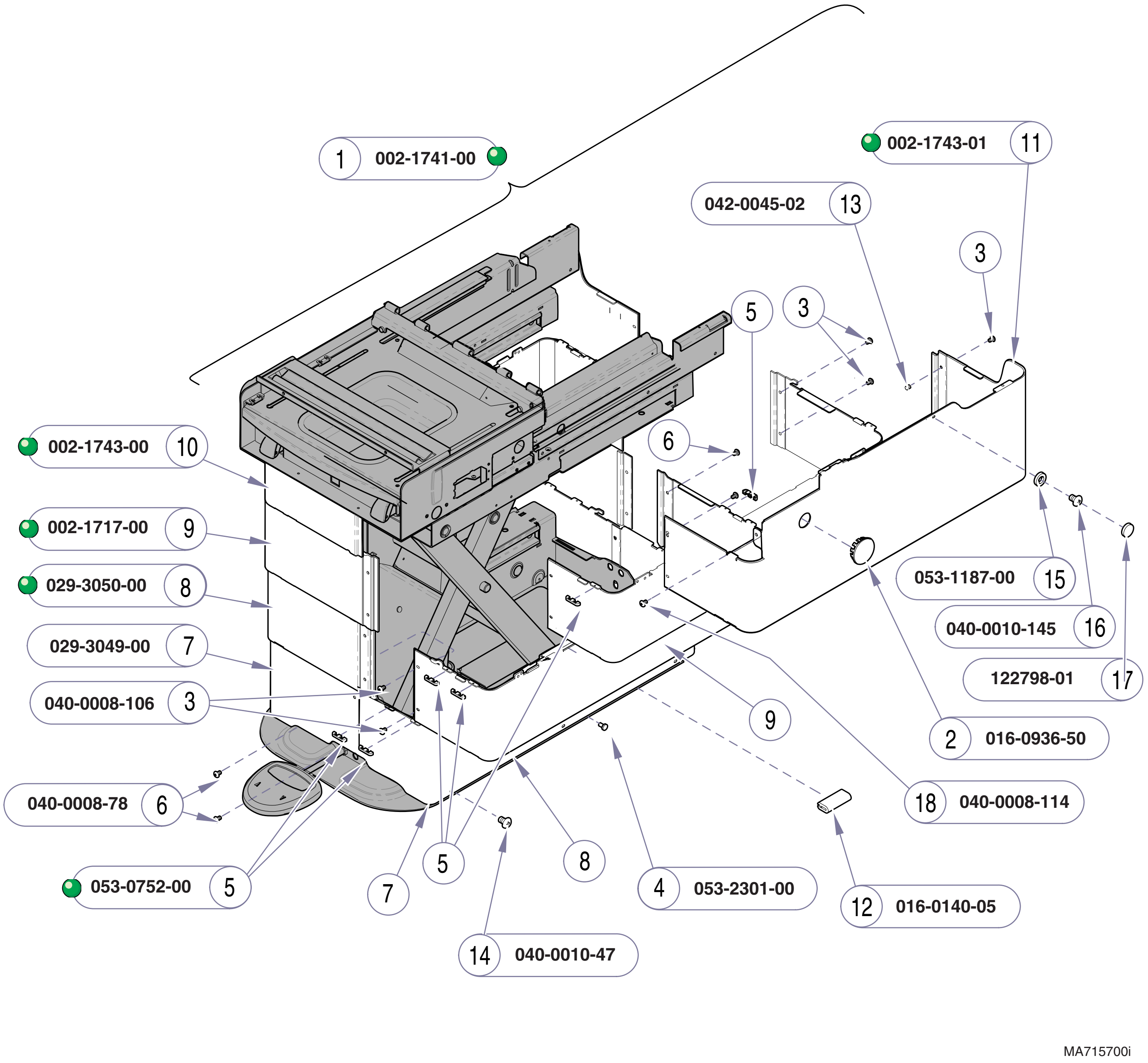
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7
5
8
4 053-2301-00
12 016-0140-05
14 040-0010-47
MA715700i

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 through 14)*	1
2	• Hole Plug	2
3	• Screw *(#8-32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12, & 13)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, & 13)*	2
10	• R.H. Outer Shroud Assembly *(includes items 5, 13, & 18)*	1
11	• L.H. Outer Shroud Assembly *(includes items 5, 13, & 18)*	1
12	• Trim Lock	4
13	• Nutsert	18
14	• Screw *(10-24 x 3/8")*	*6*
15	Screw Cover Base	2
16	Screw *(10-24 x 3/8")*	2
17	Screw Cover	2
18	Screw *(#8-32 x 3/8")*	2

Always Specify Model & Serial Number

Models:
Serial Numbers:

***222** (all)*
RG1531 thru present
RJ1313 thru present
RK2335 thru present
RM1016 thru present
RH1821 thru RH1830
RH1833 thru present
RL1061 thru present
V2200 thru V761999

***223** (all)*
SC-prefixes (all)
SD-prefixes (all)
SE-prefixes (all)
SF-prefixes (all)
SG-prefixes (all)
SH-prefixes (all)
V2200 thru V761999

Table Shrouds
(Ritter models)

E-14.1

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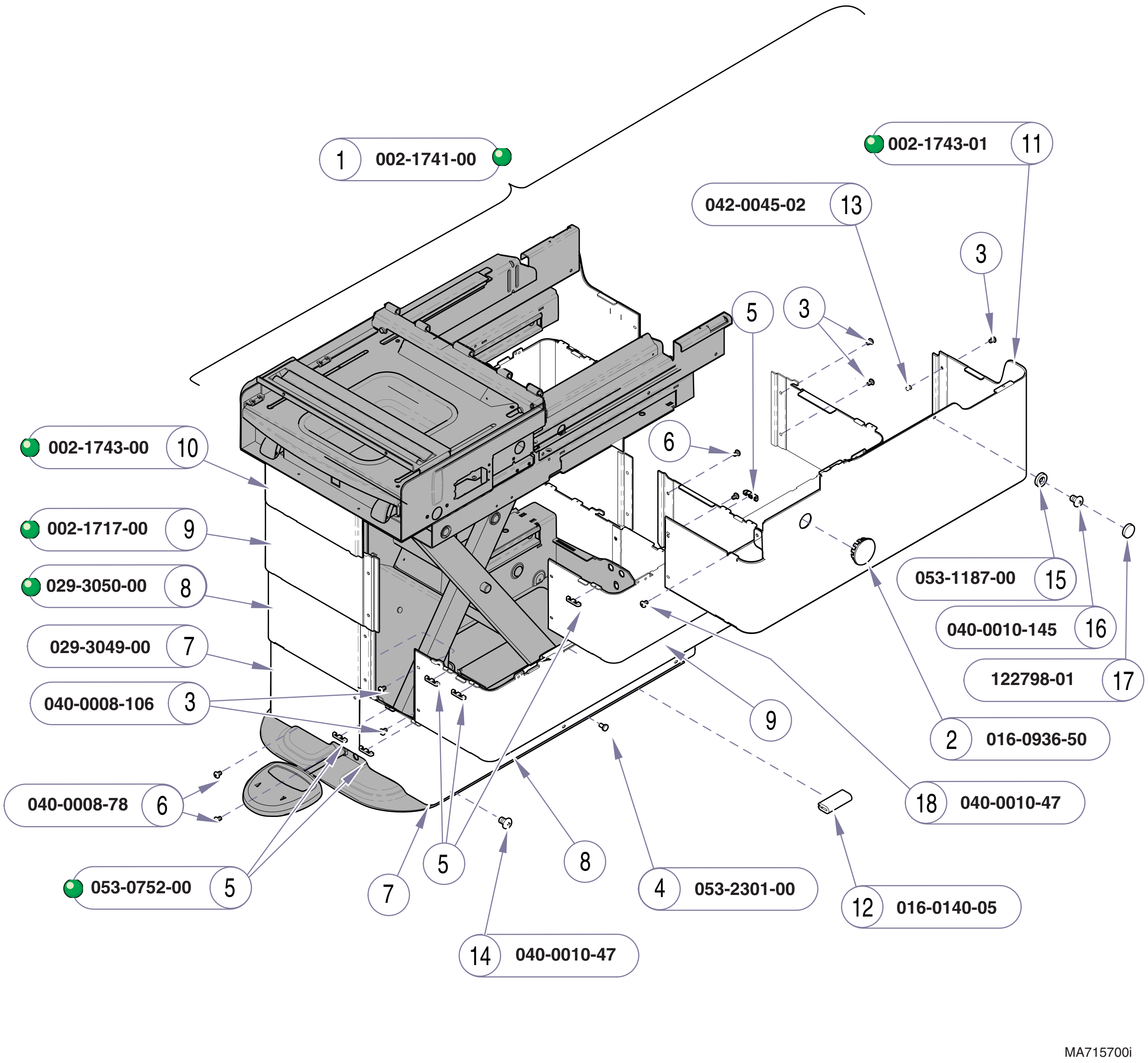
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2 016-0936-50
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12 016-0140-05
MA715700i

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 through 14)*	1
2	• Hole Plug	2
3	• Screw *(#8-32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12, & 13)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, & 13)*	2
10	• R.H. Outer Shroud Assembly *(includes items 5, 13, & 18)*	1
11	• L.H. Outer Shroud Assembly *(includes items 5, 13, & 18)*	1
12	• Trim Lock	4
13	• Nutsert	18
14	• Screw *(10-24 x 3/8")*	*6*
15	Screw Cover Base	2
16	Screw *(10-24 x 3/8")*	2
17	Screw Cover	2
18	Screw *(#10-24 x 3/8")*	2

Always Specify Model & Serial Number

Table Shrouds
(Ritter models)

Models:	**222** *(all)*	**223** *(all)*
Serial Numbers:	*V762688 thru V1077078*	*V762688 thru V1077078*

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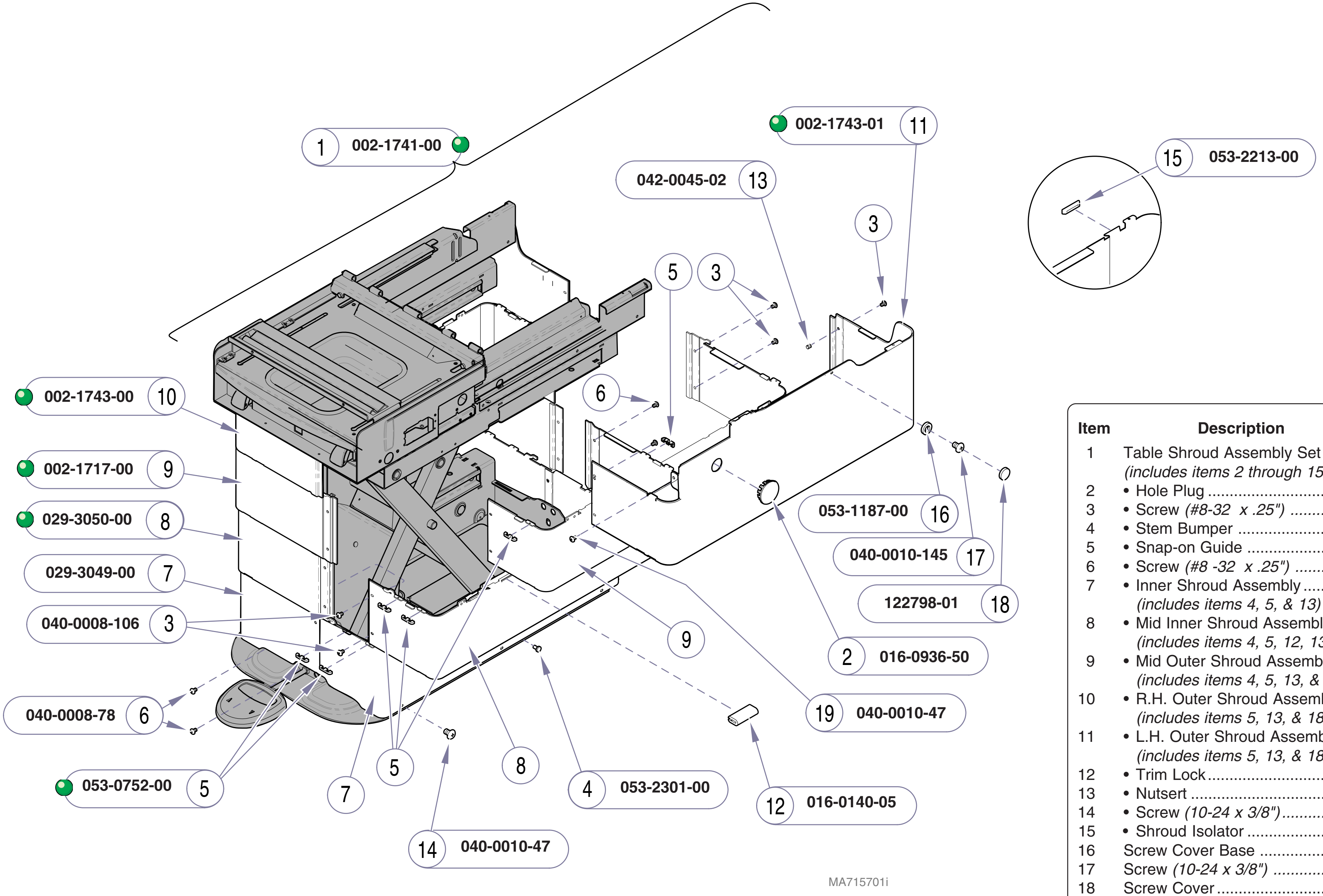
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MA715701i

Item	Description	Qty.
1	Table Shroud Assembly Set .... *(includes items 2 through 15)*	1
2	• Hole Plug	2
3	• Screw *(#8-32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly .... *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly .... *(includes items 4, 5, 12, 13, & 15)*	2
9	• Mid Outer Shroud Assembly .... *(includes items 4, 5, 13, & 15)*	2
10	• R.H. Outer Shroud Assembly .... *(includes items 5, 13, & 18)*	1
11	• L.H. Outer Shroud Assembly .... *(includes items 5, 13, & 18)*	1
12	• Trim Lock..	4
13	• Nutsert	18
14	• Screw *(10-24 x 3/8")*...................................	*6*
15	• Shroud Isolator	4
16	Screw Cover Base	2
17	Screw *(10-24 x 3/8")*	2
18	Screw Cover..	2
19	Screw *(#10-24 x 3/8")*	2

Always Specify Model & Serial Number

Models:	**222** (all)	**223** (all)
Serial Numbers:	V1077079 thru V1089389	V1077079 thru V1089389

Table Shrouds
(Ritter models)

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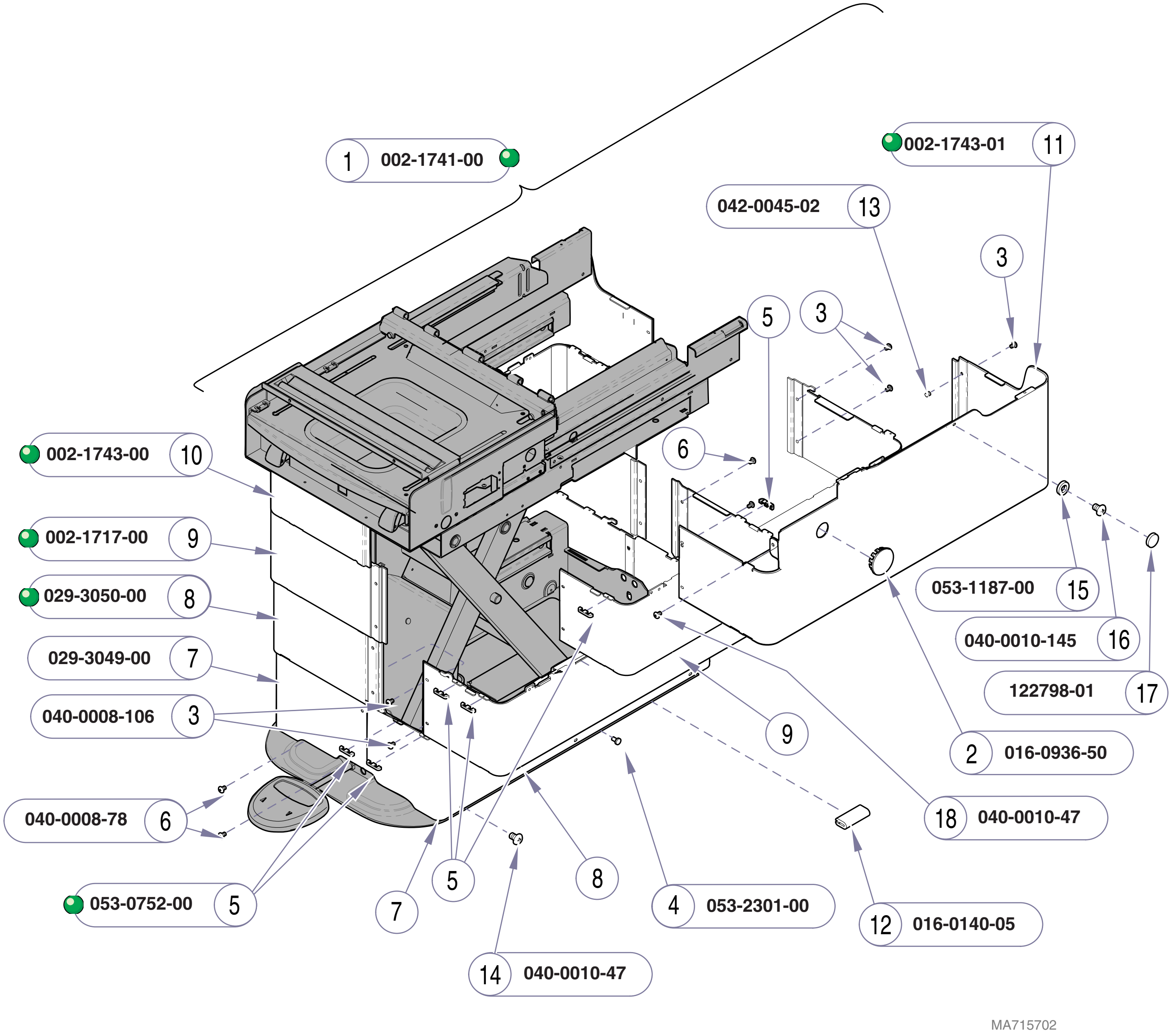
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12 016-0140-05
MA715702

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 through 14)*	1
2	• Hole Plug	2
3	• Screw *(#8-32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12, & 13)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, & 13)*	2
10	• R.H. Outer Shroud Assembly *(includes items 5, 13, & 18)*	1
11	• L.H. Outer Shroud Assembly *(includes items 5, 13, & 18)*	1
12	• Trim Lock	4
13	• Nutsert	18
14	• Screw *(10-24 x 3/8")*	*6*
15	Screw Cover Base	2
16	Screw *(10-24 x 3/8")*	2
17	Screw Cover	2
18	Screw *(#10-24 x 3/8")*	2

Always Specify Model & Serial Number

E-14.4

Table Shrouds
(*Ritter models*)

Models: | **222** *(all)* | **223** *(all)*
Serial Numbers: | *V1089390 - V1531182* | *V1089390 - V1531182*

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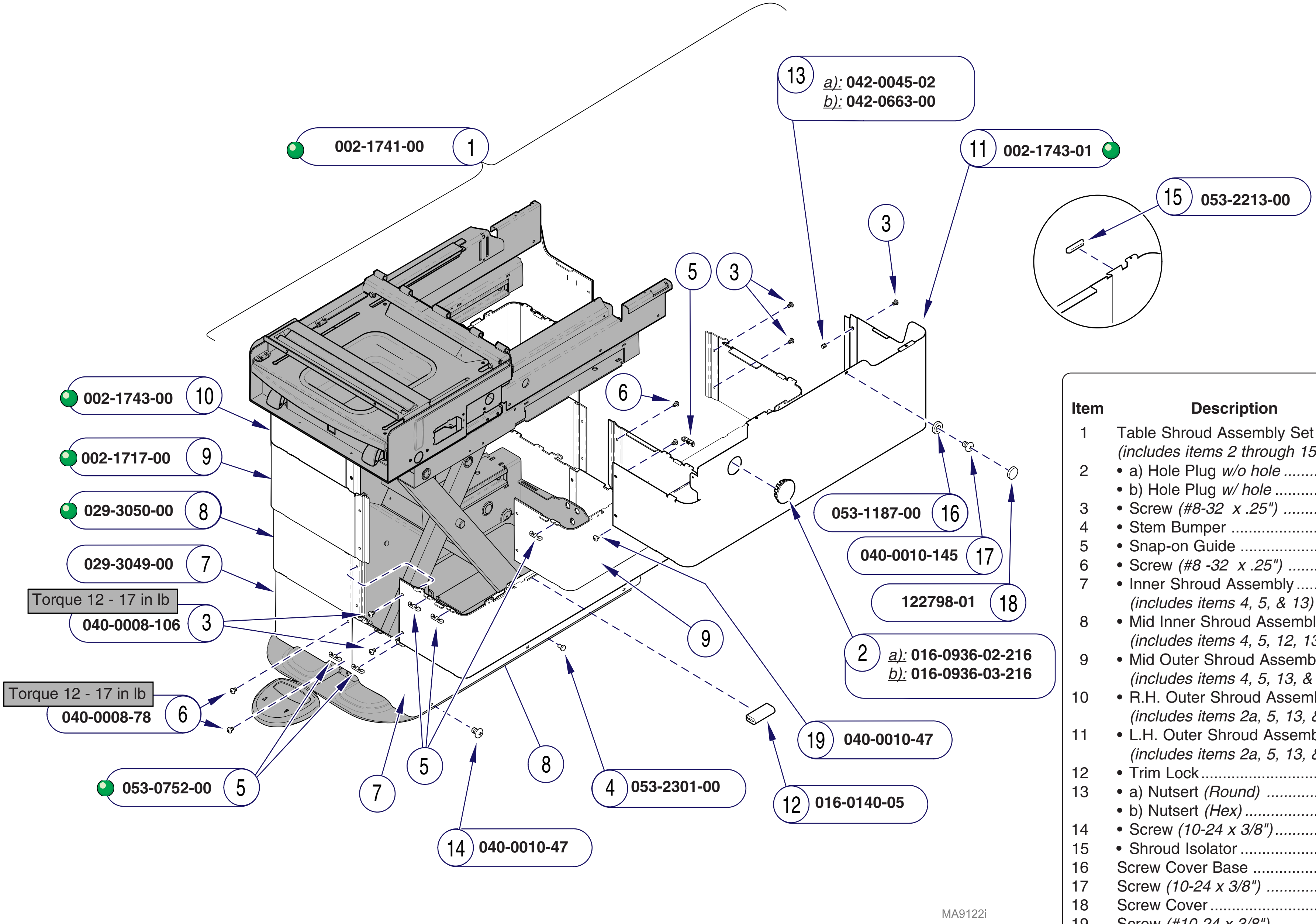
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5
8
053-0752-00 5
7
4 053-2301-00
12 016-0140-05
14 040-0010-47
MA9122i

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 through 15)*	1
2	• a) Hole Plug *w/o hole*	2
	• b) Hole Plug *w/ hole*	2
3	• Screw *(#8-32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12, 13, & 15)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, 13, & 15)*	2
10	• R.H. Outer Shroud Assembly *(includes items 2a, 5, 13, & 18)*	1
11	• L.H. Outer Shroud Assembly *(includes items 2a, 5, 13, & 18)*	1
12	• Trim Lock	4
13	• a) Nutsert *(Round)*	18
	• b) Nutsert *(Hex)*	18
14	• Screw *(10-24 x 3/8")*	6
15	• Shroud Isolator	8
16	Screw Cover Base	2
17	Screw *(10-24 x 3/8")*	2
18	Screw Cover	2
19	Screw *(#10-24 x 3/8")*	2

Always Specify Model & Serial Number

Models: Serial Numbers:	**222** *(all)* *V1531183 - present*	**223** *(all)* *V1531183 - present*

Table Shrouds
(Ritter models)

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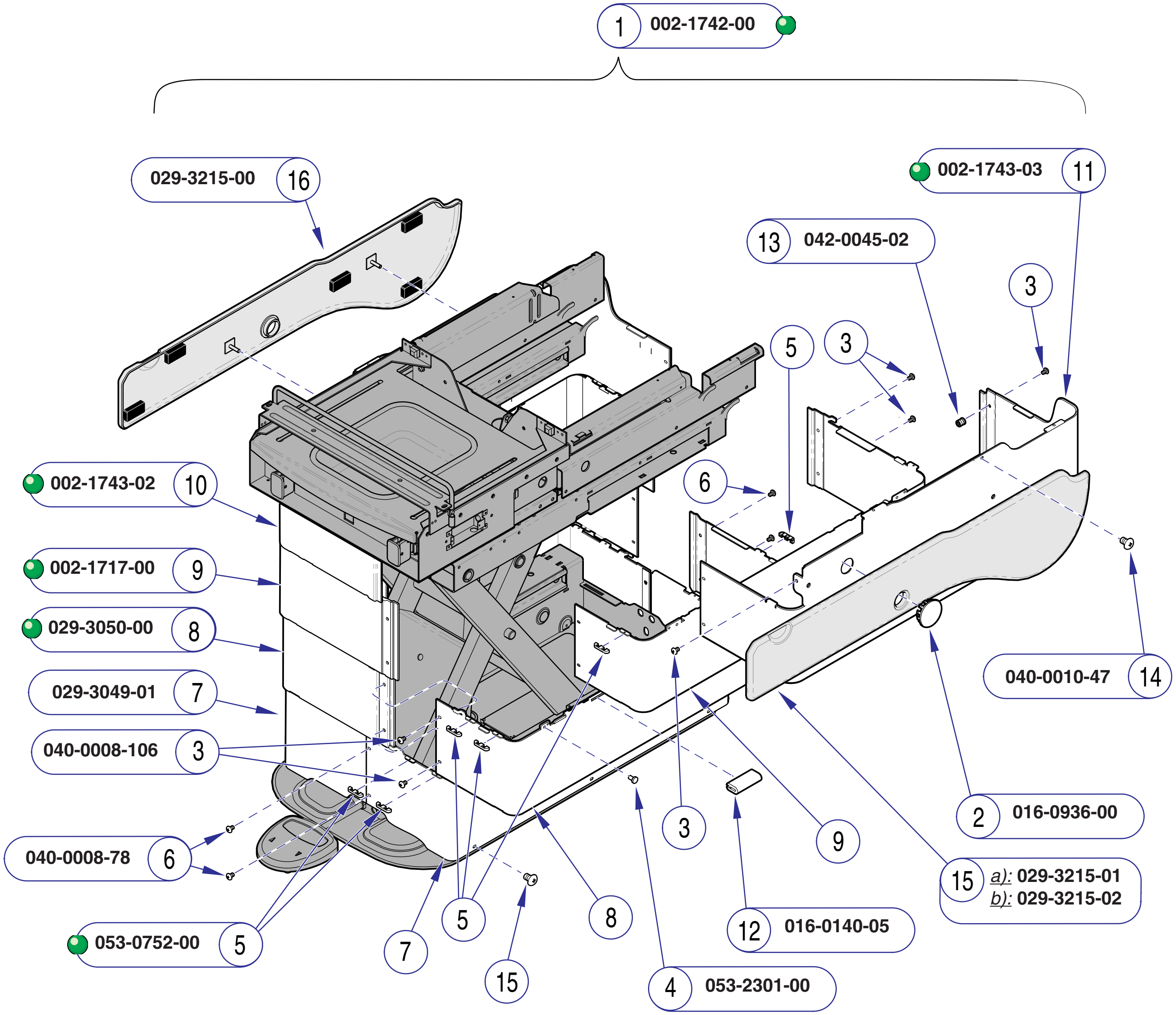
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4 053-2301-00

MA637804i

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 thru 13)*	1
2	• Hole Plug	2
3	• Screw *(#8 -32 x .25")*	12
4	• Stem Bumper	32
5	• Snap-on Guide	36
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12 & 13)*	2
9	• Mid Outer Shroud Assembly *(includes items, 4, 5, 13, & 14)*	2
10	• R.H. Outer Shroud Assembly *(includes items, 3, & 13)*	1
11	• L.H. Outer Shroud Assembly *(includes items, 3, &13)*	1
12	• Trim Lock	4
13	• Nutsert	18
14	Screw *(10-24 x 1/2")*	10
15	LH Cladding Assembly:	
	a) *w/ receptacle cutout*	1
	b) *w/o receptacle cutout*	1
16	R.H. Cladding Assembly	1

Always Specify Model & Serial Number

Table Shrouds
(Midmark models)

Models:	***622*** ***(-001 thru -006)***	***623*** ***(-001 thru -006)***
Serial Numbers:	*All*	*All*

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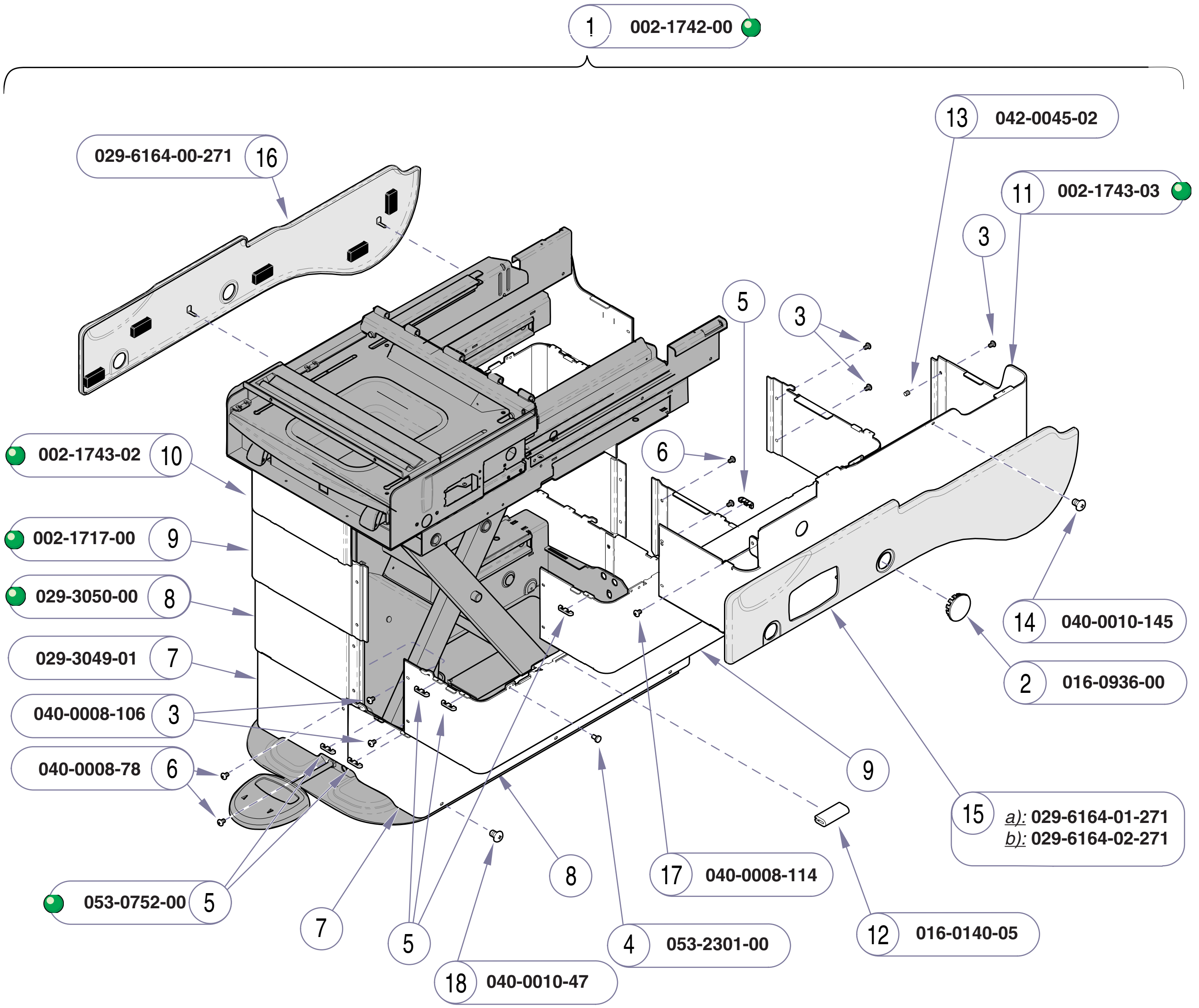
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18 040-0010-47
MA715800i

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 thru 14)*	1
2	• Hole Plug	4
3	• Screw *(#8 -32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12 & 13)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, & 13)*	2
10	• R.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 17)*	1
11	• L.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 17)*	1
12	• Trim Lock	4
13	• Nutsert	18
14	• Screw *(10-24 x 1/2")*	2
15	LH Cladding Assembly: a) *w/ receptacle cutout* b) *w/o receptacle cutout*	 1 1
16	R.H. Cladding Assembly	1
17	Screw *(#8-32 x 3/8")*	2
18	Screw	6

Always Specify Model & Serial Number

Models:	**622** (-007 & -008)	**623** (-007 thru -010)
Serial Numbers:	V216996 thru V761999	V216996 thru V761999

Table Shrouds
(Midmark models)

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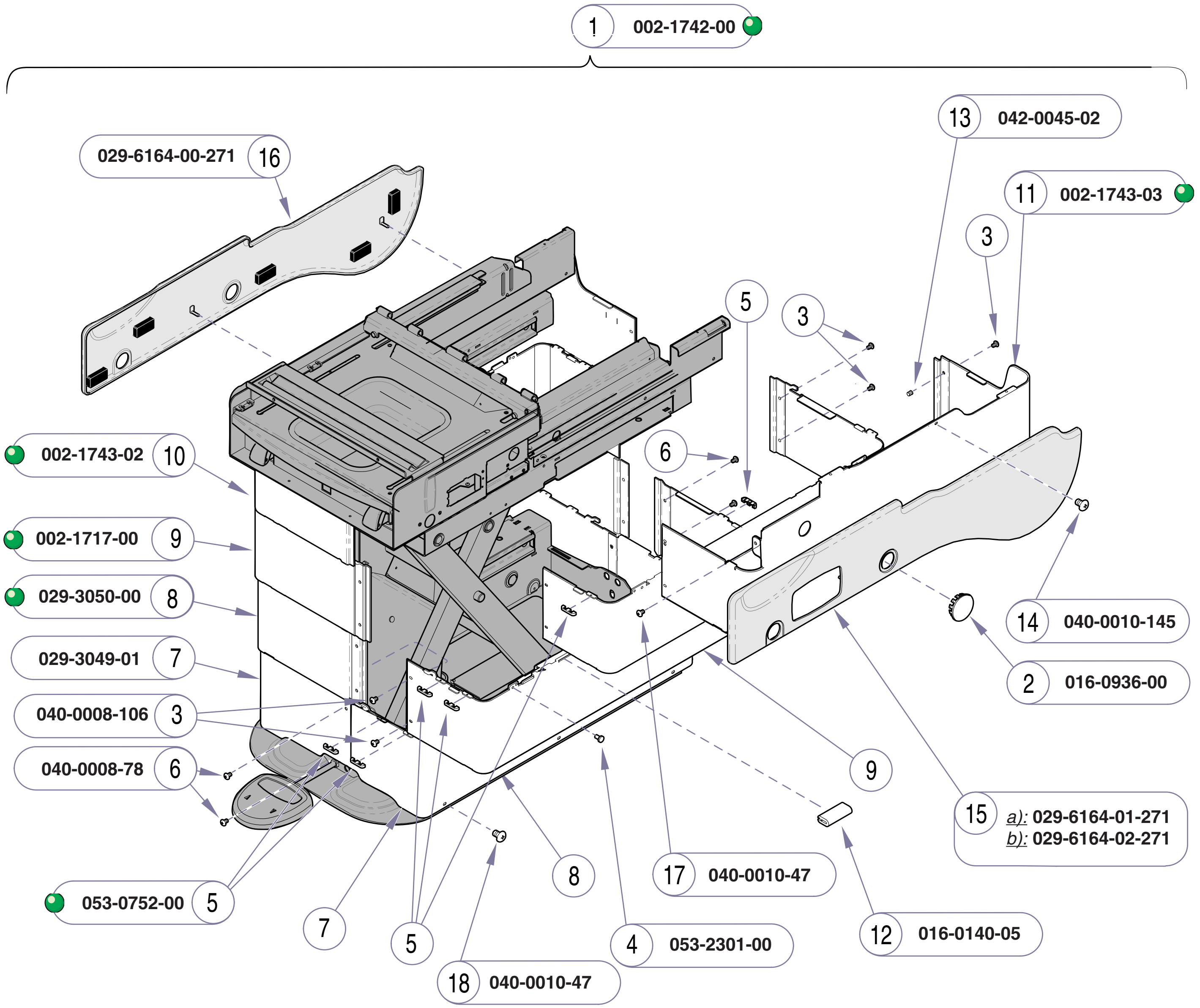
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7
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18 040-0010-47
MA715800i

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 thru 14)*	1
2	• Hole Plug	4
3	• Screw *(#8 -32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12 & 13)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, & 13)*	2
10	• R.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 17)*	1
11	• L.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 17)*	1
12	• Trim Lock	4
13	• Nutsert	18
14	• Screw *(10-24 x 1/2")*	2
15	LH Cladding Assembly:	
	a) *w/ receptacle cutout*	1
	b) *w/o receptacle cutout*	1
16	R.H. Cladding Assembly	1
17	Screw *(#10-24 x 3/8")*	2
18	Screw	6

Always Specify Model & Serial Number

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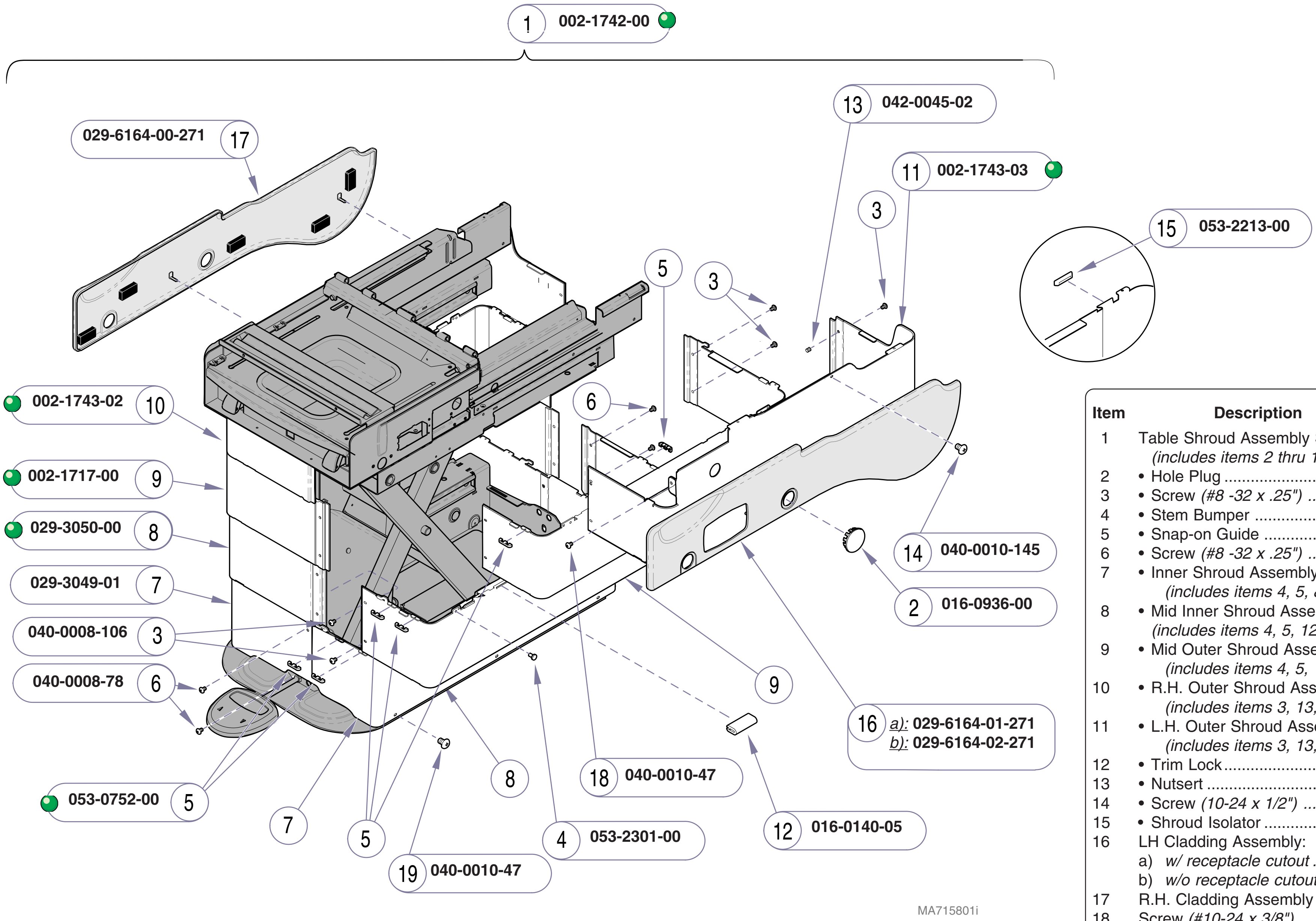
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040-0008-78 6
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2 016-0936-00
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7
5
8
18 040-0010-47
4 053-2301-00
12 016-0140-05
19 040-0010-47
MA715801i

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 thru 15)*	1
2	• Hole Plug	4
3	• Screw *(#8 -32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12, 13, & 15)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, 13, & 15)*	2
10	• R.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 18)*	1
11	• L.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 18)*	1
12	• Trim Lock	4
13	• Nutsert	18
14	• Screw *(10-24 x 1/2")*	2
15	• Shroud Isolator	4
16	LH Cladding Assembly:	
	a) *w/ receptacle cutout*	1
	b) *w/o receptacle cutout*	1
17	R.H. Cladding Assembly	1
18	Screw *(#10-24 x 3/8")*	2
19	Screw	6

Always Specify Model & Serial Number

Models:	***622** (-007 & -008)*	***623** (-007 thru -010)*
Serial Numbers:	*V1077079 thru V1089389*	*V1077079 thru V1089389*

Table Shrouds
(Midmark models)

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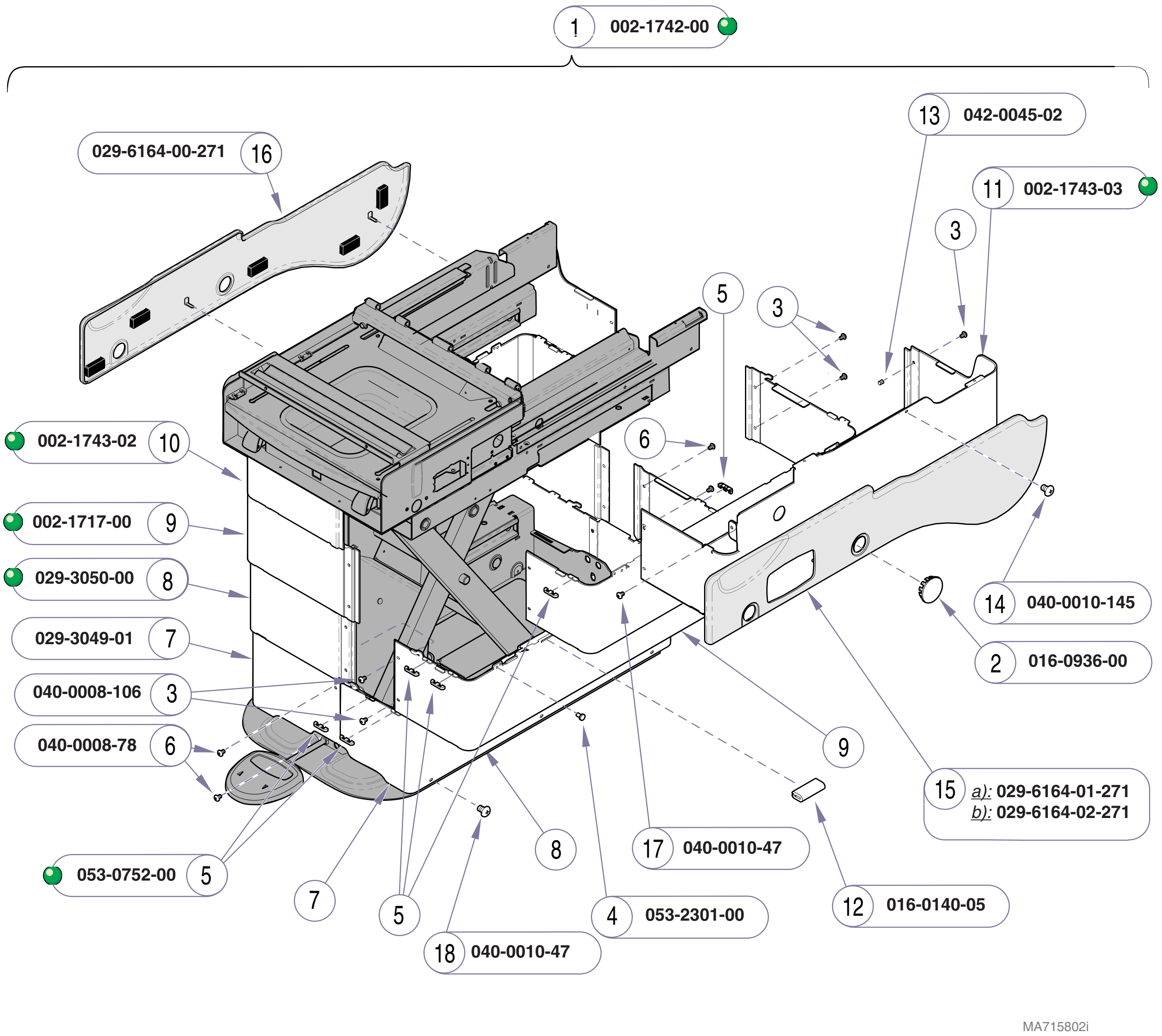
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4 053-2301-00
12 016-0140-05
18 040-0010-47
MA715802i

Item	Description	Qty.
1	Table Shroud Assembly Set *(includes items 2 thru 14)*	1
2	• Hole Plug	4
3	• Screw *(#8 -32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12 & 13)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, & 13)*	2
10	• R.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 17)*	1
11	• L.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 17)*	1
12	• Trim Lock	4
13	• Nutsert	18
14	• Screw *(10-24 x 1/2")*	2
15	LH Cladding Assembly:	
	a) *w/ receptacle cutout*	1
	b) *w/o receptacle cutout*	1
16	R.H. Cladding Assembly	1
17	Screw *(#10-24 x 3/8")*	2
18	Screw	6

Always Specify Model & Serial Number

Table Shrouds
(Midmark models)

Models: Serial Numbers:	**622** (-007 & -008) *V1089390 thru V1545232*	**623** (-007 thru -010) *V1089390 thru V1545232*

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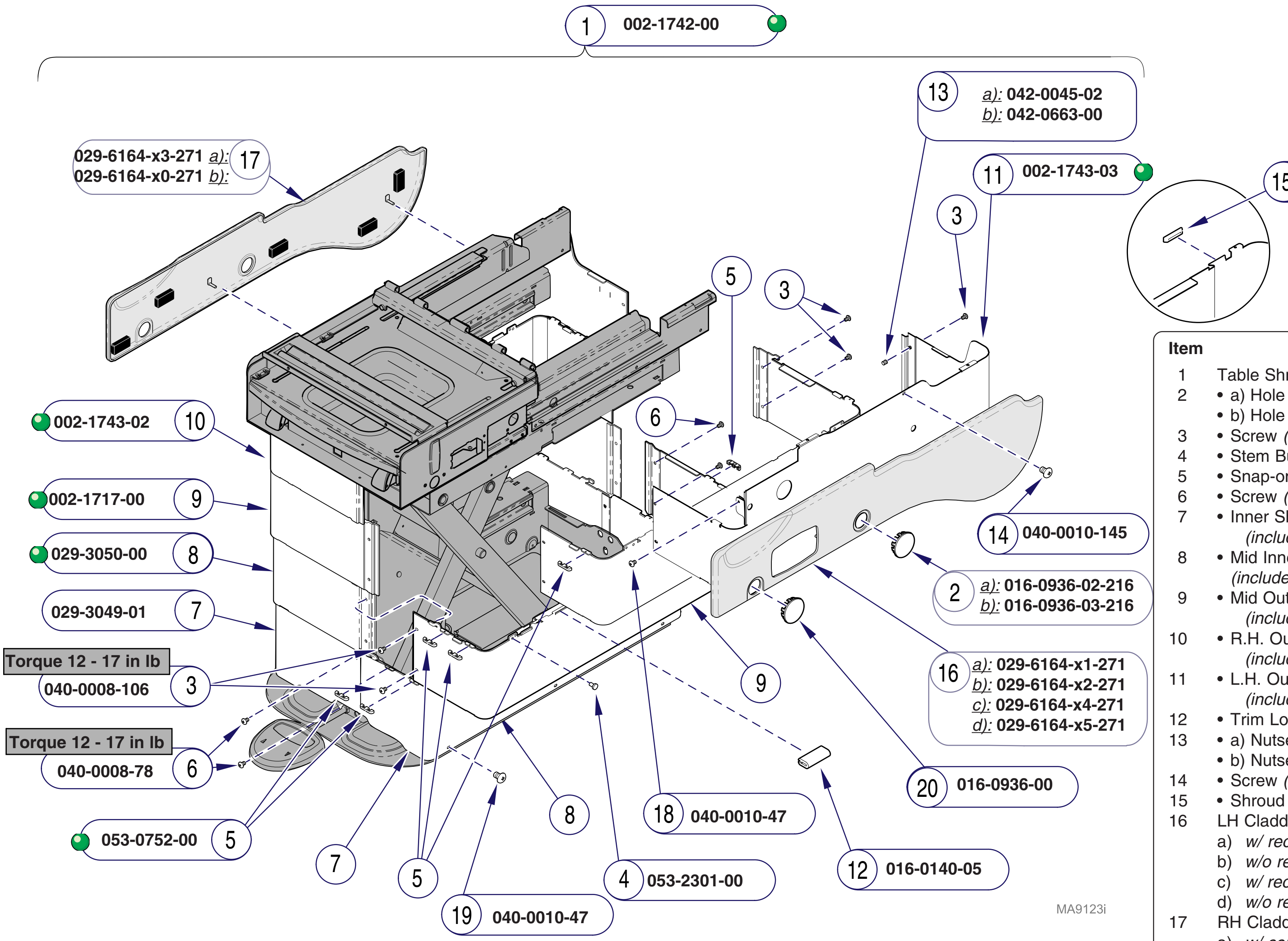
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7 029-3049-01
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3 040-0008-106
9
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18 040-0010-47
7
5
4 053-2301-00
12 016-0140-05
19 040-0010-47
MA9123i

Item	Description	Qty.
1	Table Shroud Assy Set (*incl Items 2-15*)	1
2	• a) Hole Plug *w/o hole*	2
	• b) Hole Plug *w/ hole*	2
3	• Screw *(#8 -32 x .25")*	12
4	• Stem Bumper	14
5	• Snap-on Guide	32
6	• Screw *(#8 -32 x .25")*	4
7	• Inner Shroud Assembly *(includes items 4, 5, & 13)*	2
8	• Mid Inner Shroud Assembly *(includes items 4, 5, 12, 13, & 15)*	2
9	• Mid Outer Shroud Assembly *(includes items 4, 5, 13, & 15)*	2
10	• R.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 18)*	1
11	• L.H. Outer Shroud Assembly *(includes items 3, 13, 14, & 18)*	1
12	• Trim Lock	4
13	• a) Nutsert *(Round)*	18
	• b) Nutsert *(Hex)*	18
14	• Screw *(10-24 x 1/2")*	2
15	• Shroud Isolator	8
16	LH Cladding Assembly:	
	a) *w/ receptacle cutout*	1
	b) *w/o receptacle cutout (not shown)*	1
	c) *w/ recept cutout/cer mag (not shown)*	1
	d) *w/o recept cutout/cer mag (not shown)*	1
17	RH Cladding Assembly:	
	a) *w/ ceramic magnet*	1
	b) *w/o ceramic magnet (not shown)*	1
18	Screw *(#10-24 x 3/8")*	2
19	Screw	6
20	Hole Plug	2

Always Specify Model & Serial Number

Models: Serial Numbers:	***622*** *(-007 & -008)* *V1545233 - present*	***623*** *(-007 thru -011)* *V1545233 - present*

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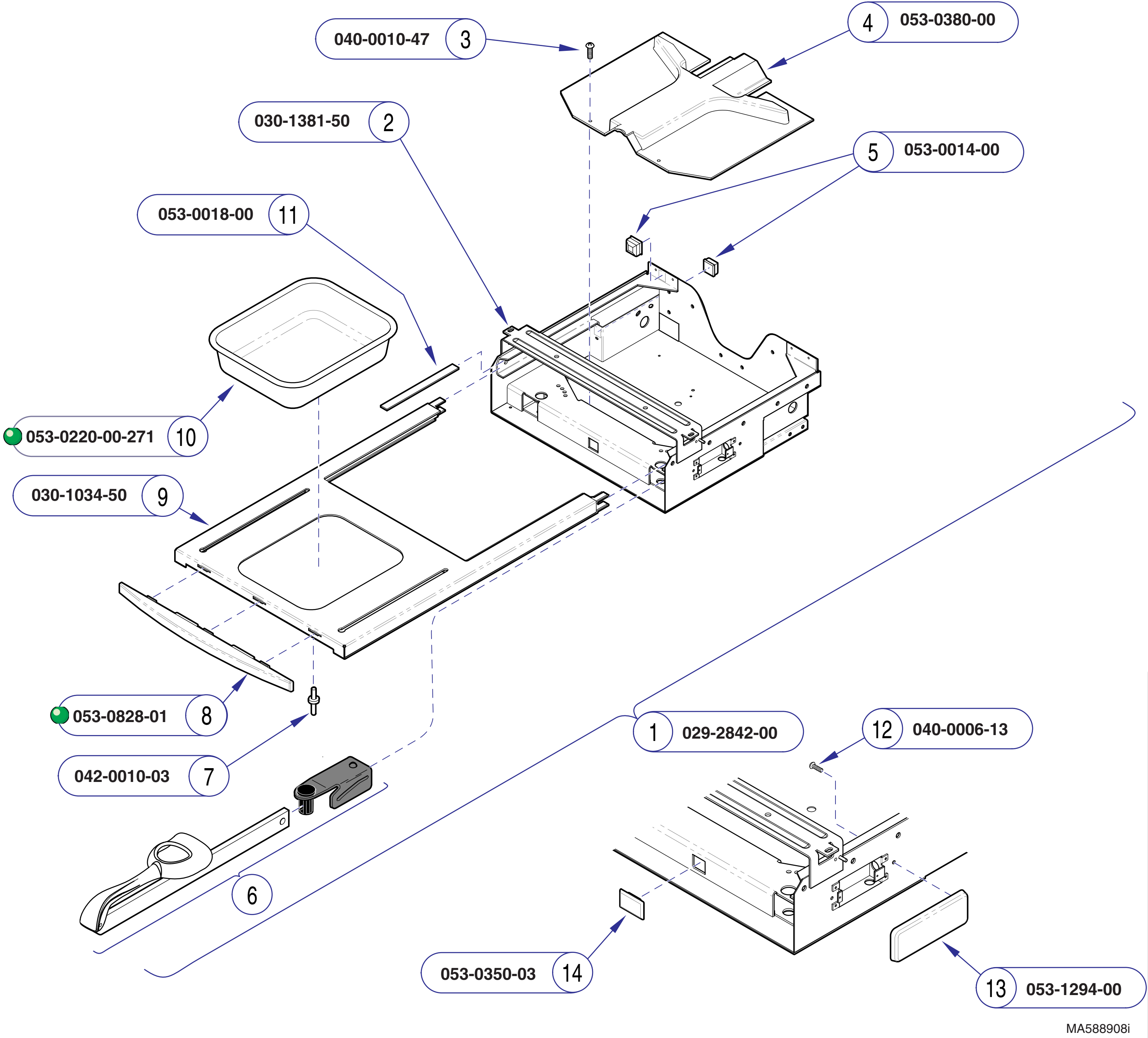
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6
1 029-2842-00
12 040-0006-13
053-0350-03 14
13 053-1294-00
MA588908i

Item	Description	Qty.
1	Upperwrap Assembly *(includes items 2 thru 11)*	1
2	• Upper Wrap Weldment	1
3	• Screw *(10-24 x 3/8")*	6
4	• Stirrup Guide	1
5	• Bumper	4
6	• Refer to: *"Stirrup Assembly"*	2
7	• Pop Rivot	2
8	• Foot Rest Trim	1
9	• Foot Rest Shelf	1
10	• Plastic Treatment Pan	1
11	• Nylon Tape *(sold by inch)*	44
12	Screw *(models w/o receptacle)*	2
13	Cover *(models w/o receptacle)*	1
14	Cover *(models w/o drawer htr.)*	1

Always Specify Model & Serial Number

Models: ***222 (-001 thru -010)***

Serial Numbers:

RG1000 thru RG1123
RJ1000 thru RJ1094
RL1000 (one table)
RH1000 thru RH1386
RK1000 thru RK1266
RM1000 thru RM1015

Ritter Upperwrap & Footrest Shelf

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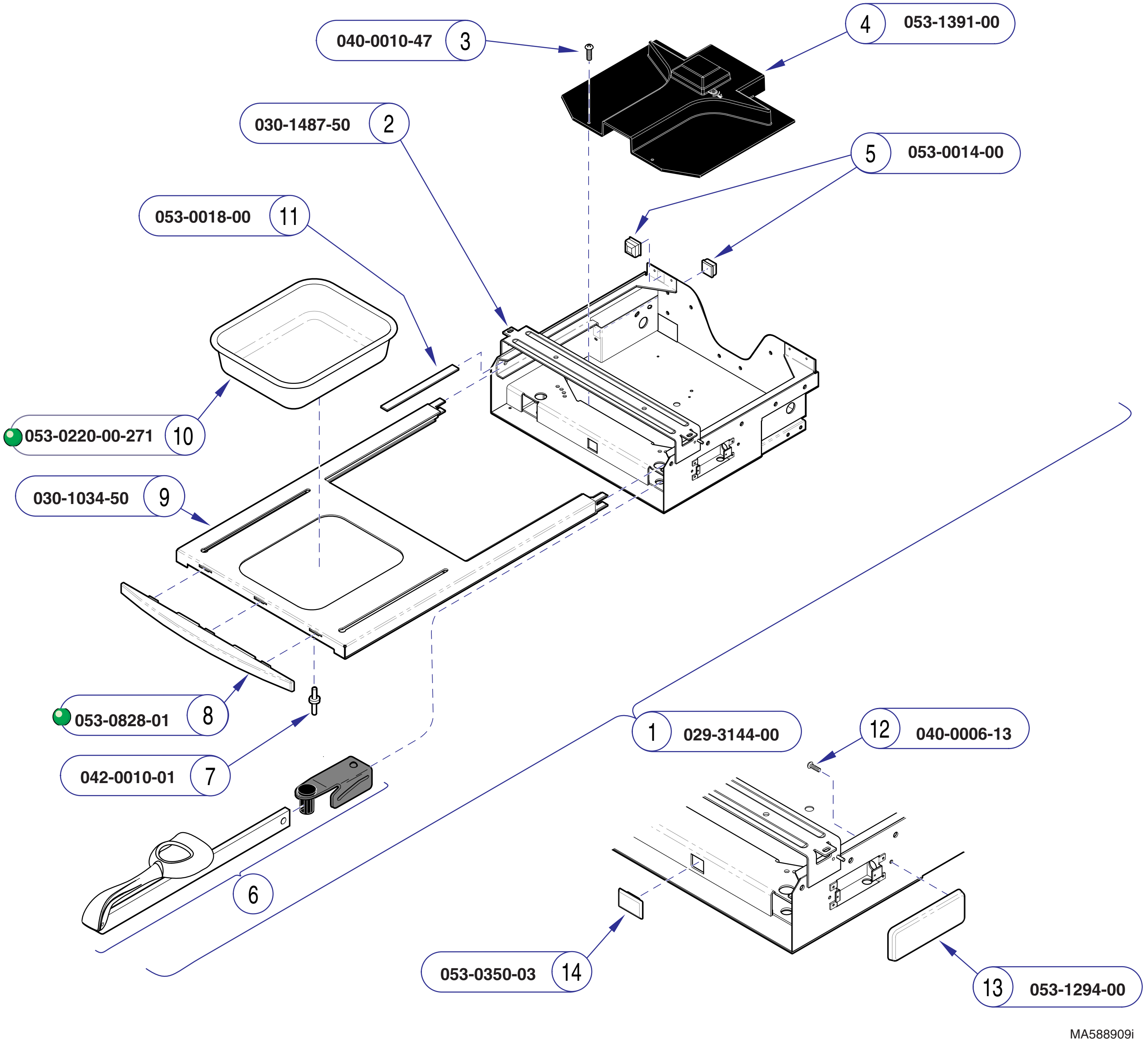
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042-0010-01 7
6
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12 040-0006-13
053-0350-03 14
13 053-1294-00
MA588909i

Item	Description	Qty.
1	Upperwrap Assembly *(includes items 2 thru 11)*	1
2	• Upper Wrap Weldment	1
3	• Screw *(10-24 x 3/8")*	6
4	• Stirrup Guide	1
5	• Bumper	4
6	• Refer to: *"Stirrup Assembly"*	2
7	• Pop Rivot	2
8	• Foot Rest Trim	1
9	• Foot Rest Shelf	1
10	• Plastic Treatment Pan	1
11	• Nylon Tape *(sold by inch)*	44
12	Screw *(models w/o receptacle)*	2
13	Cover *(models w/o receptacle)*	1
14	Cover *(models w/o drawer htr.)*	1

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***222** (-001 thru -014)*		***223** (-001 thru -014)*
	RG1124 thru present	*RH1387 thru present*	*All*
	RJ1095 thru present	*RK1267 thru present*	
	RL1001 thru present	*RM1016 thru present*	
	V2200 thru present		

Ritter Upperwrap & Footrest Shelf

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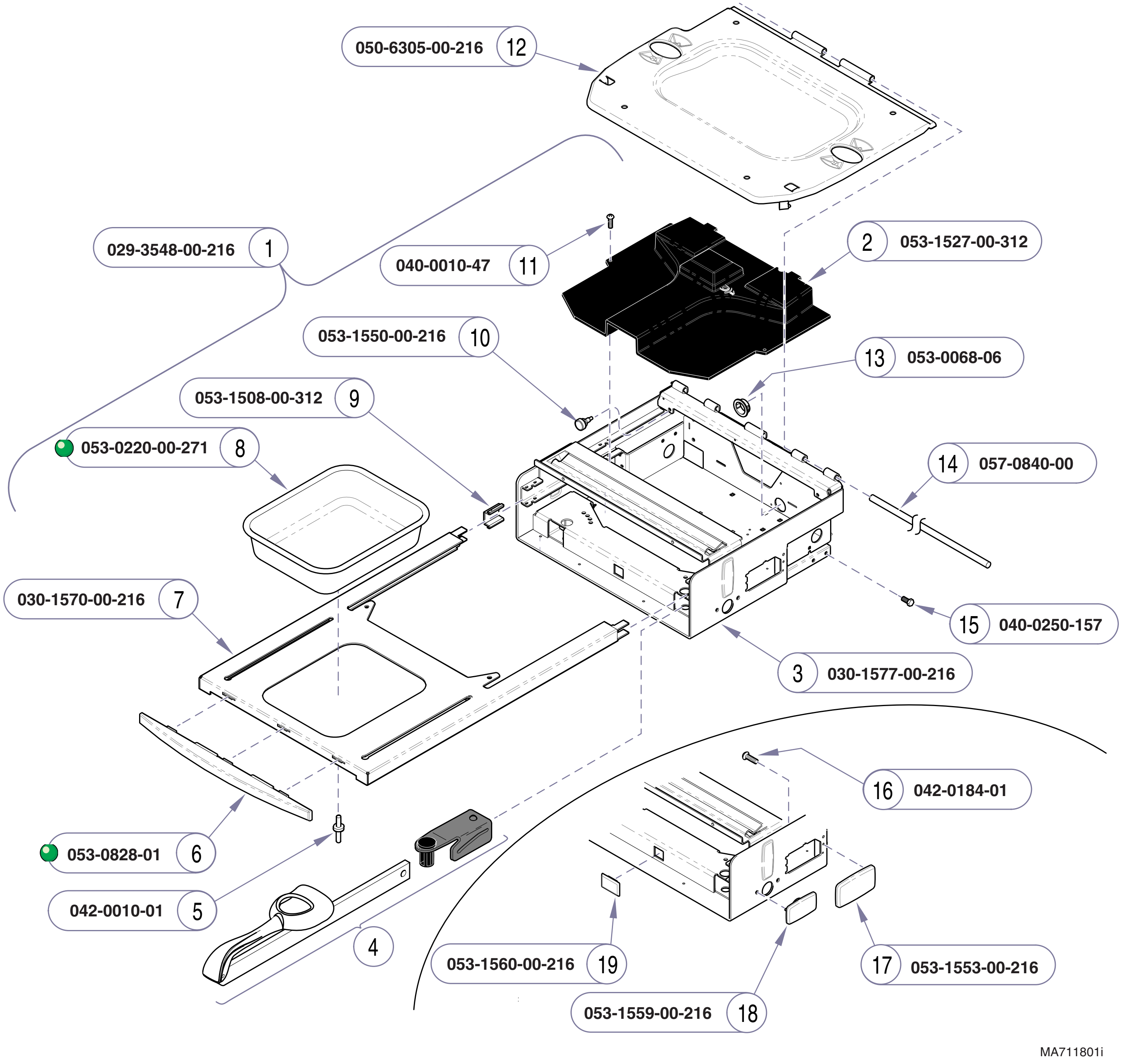
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040-0250-157 15
030-1577-00-216 3
042-0184-01 16
053-0828-01 6
042-0010-01 5
4
053-1560-00-216 19
053-1553-00-216 17
053-1559-00-216 18
MA711801i

Item	Description	Qty.
1	Upperwrap Assembly *(includes items 2 thru 11)*	1
2	• Stirrup Guide	1
3	• Upper Wrap Weldment	1
4	• Refer to: *"Stirrup Assembly"*	2
5	• Pop Rivot	2
6	• Foot Rest Trim	1
7	• Foot Rest Shelf	1
8	• Plastic Treatment Pan	1
9	• Runner Glide	4
10	• Stem Bumper	4
11	• Screw *(#10-24 x 3/8")*	2
12	Seat Mtg. Frame	1
13	Snap Bushing	3
14	Pivot Rod	1
15	Screw *(1/4"-20 x 1/2")*	4
	Items 16 thru 19 are optional, ***depending on the table's features:***	
16	Screw *(10-24 x 3/8")*	1
17	Cover *(receptacle)*	1
18	Cover *(accessory socket hole)*	1
19	Cover *(drawer heater switch)*	1

Always Specify Model & Serial Number

Ritter Upperwrap & Footrest Shelf

Models: Serial Numbers:	***222*** *(-015 thru -017)* *prior to V323419*	***223*** *(-015 thru -016)* *prior to V323419*

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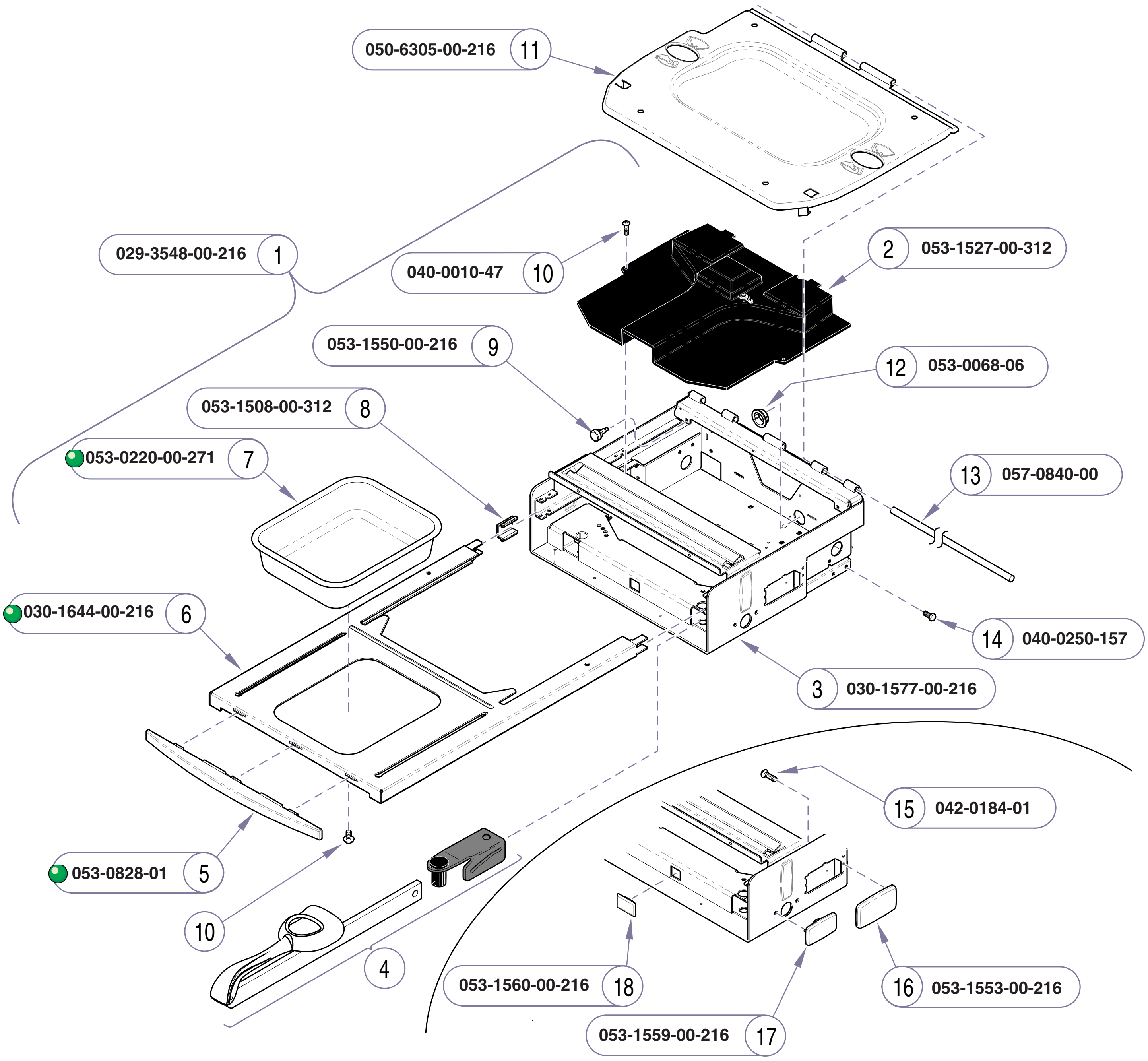
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053-0828-01 5
10
4
053-1560-00-216 18
16 053-1553-00-216
053-1559-00-216 17
MA711802i

Item	Description	Qty.
1	Upperwrap Assembly *(includes items 2 thru 10)*	1
2	• Stirrup Guide	1
3	• Upper Wrap Weldment	1
4	• Refer to: *"Stirrup Assembly"*	2
5	• Foot Rest Trim	1
6	• Foot Rest Shelf	1
7	• Plastic Treatment Pan	1
8	• Runner Glide	4
9	• Stem Bumper	4
10	• Screw *(#10-24 x 3/8")*	4
11	Seat Mtg. Frame	1
12	Snap Bushing	3
13	Pivot Rod	1
14	Screw *(1/4"-20 x 1/2")*	4
	Items 15 thru 18 are optional, depending on the table's features:	
15	Screw *(10-24 x 3/8")*	1
16	Cover *(receptacle)*	1
17	Cover *(accessory socket hole)*	1
18	Cover *(drawer heater switch)*	1

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***222** (-015 thru -017)* *V323419 to V816454*	***223** (-015 thru -016)* *V323419 to V816454*

Ritter Upperwrap & Footrest Shelf

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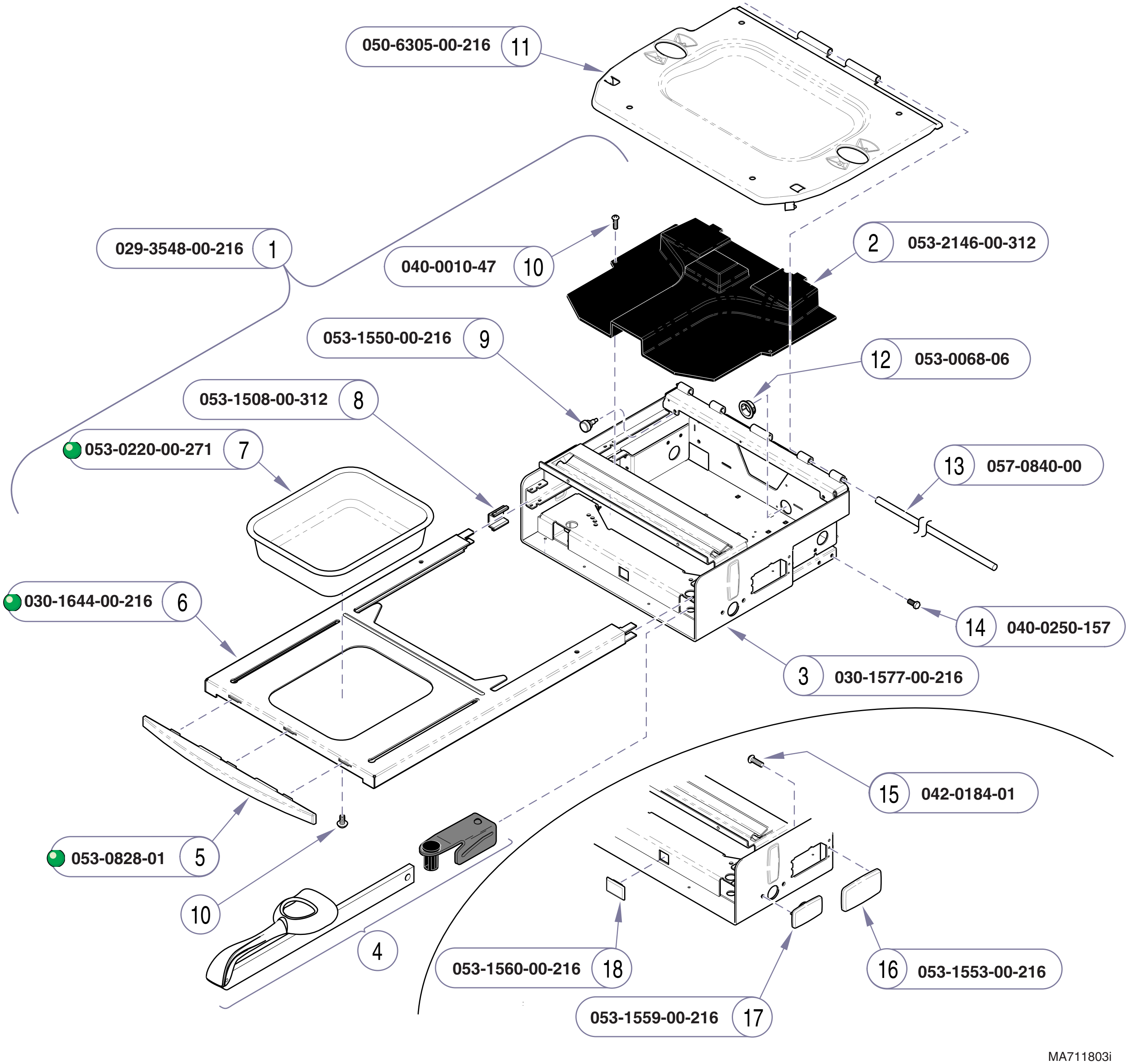
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053-0828-01 5
10
4
053-1560-00-216 18
053-1553-00-216 16
053-1559-00-216 17
MA711803i

Item	Description	Qty.
1	Upperwrap Assembly *(includes items 2 thru 10)*	1
2	• Stirrup Guide	1
3	• Upper Wrap Weldment	1
4	• Refer to: *"Stirrup Assembly"*	2
5	• Foot Rest Trim	1
6	• Foot Rest Shelf	1
7	• Plastic Treatment Pan	1
8	• Runner Glide	4
9	• Stem Bumper	4
10	• Screw *(#10-24 x 3/8")*	4
11	Seat Mtg. Frame	1
12	Snap Bushing	3
13	Pivot Rod	1
14	Screw *(1/4"-20 x 1/2")*	4
	Items 15 thru 18 are optional, depending on the table's features:	
15	Screw *(10-24 x 3/8")*	1
16	Cover *(receptacle)*	1
17	Cover *(accessory socket hole)*	1
18	Cover *(drawer heater switch)*	1

Always Specify Model & Serial Number

Ritter Upperwrap & Footrest Shelf

Models: *Serial Numbers:*	***222** (-015 thru -017)* *V816455 thru present*	***223** (-015 thru -016)* *V816455 thru present*

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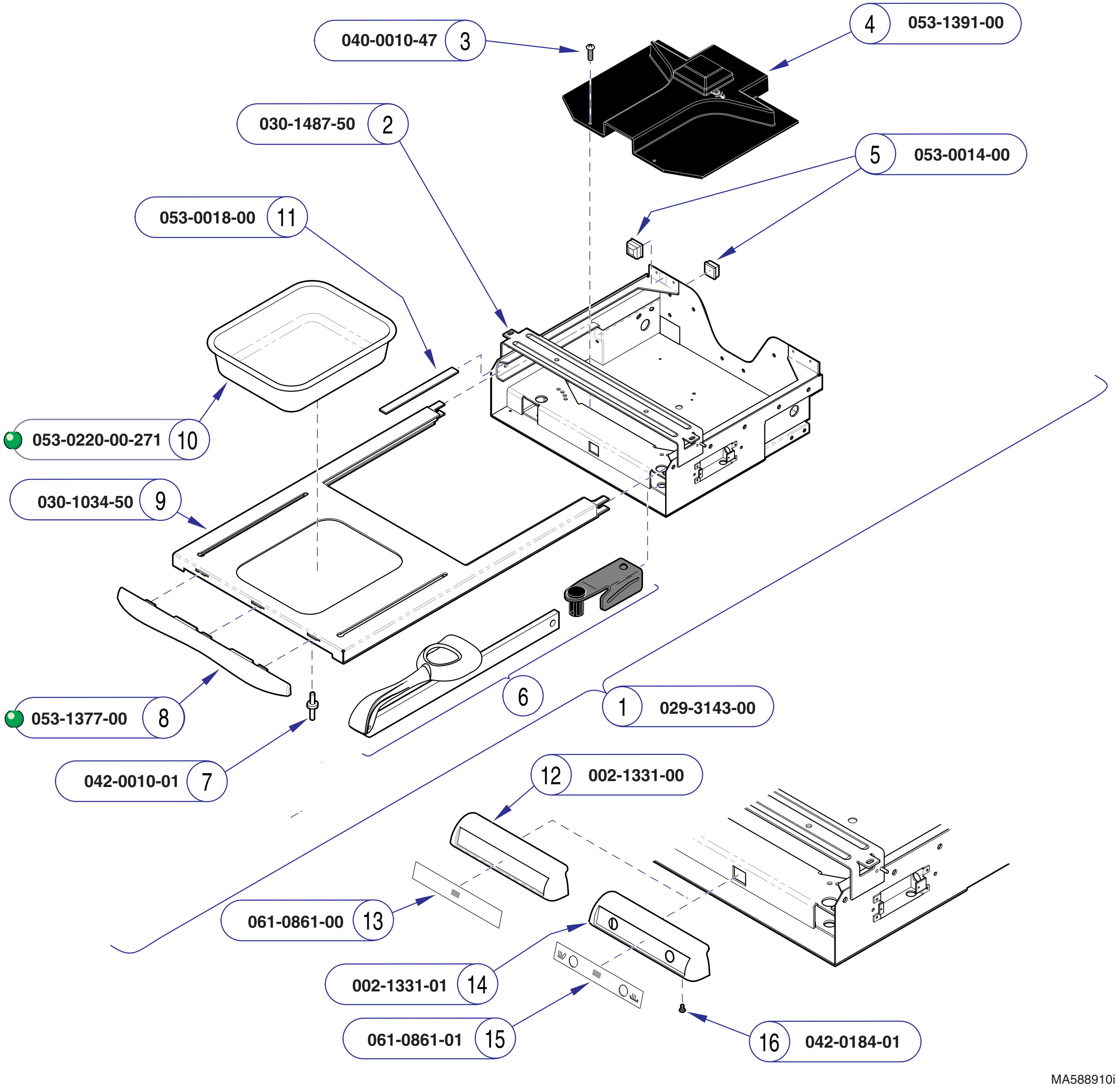
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061-0861-00 13
002-1331-01 14
061-0861-01 15
16 042-0184-01
MA588910i

Item	Description	Qty.
1	Upperwrap Assembly *(includes items 2 thru 11)*	1
2	• Upper Wrap Weldment	1
3	• Screw *(10-24 x 3/8")*	6
4	• Stirrup Guide	1
5	• Bumper	4
6	• Refer to: *"Stirrup Assembly"*	2
7	• Pop Rivet	2
8	• Foot Rest Trim	1
9	• Foot Rest Shelf	1
10	• Plastic Treatment Pan	1
11	• Nylon Tape *(sold by inch)*	44
12	Switch Housing and Label Kit *(without switch holes [includes label])*	1
13	Switch Housing Label *(no holes)*	1
14	Switch Housing and Label Kit *(with two switch holes [includes label])*	1
15	Switch Housing Label *(two holes)*	1
16	Screw *(K40 x 12)*	2

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***622*** ***(-001 thru -006)*** *All*	***623*** ***(-001 thru -006)*** *All*

Midmark Upperwrap & Footrest Shelf

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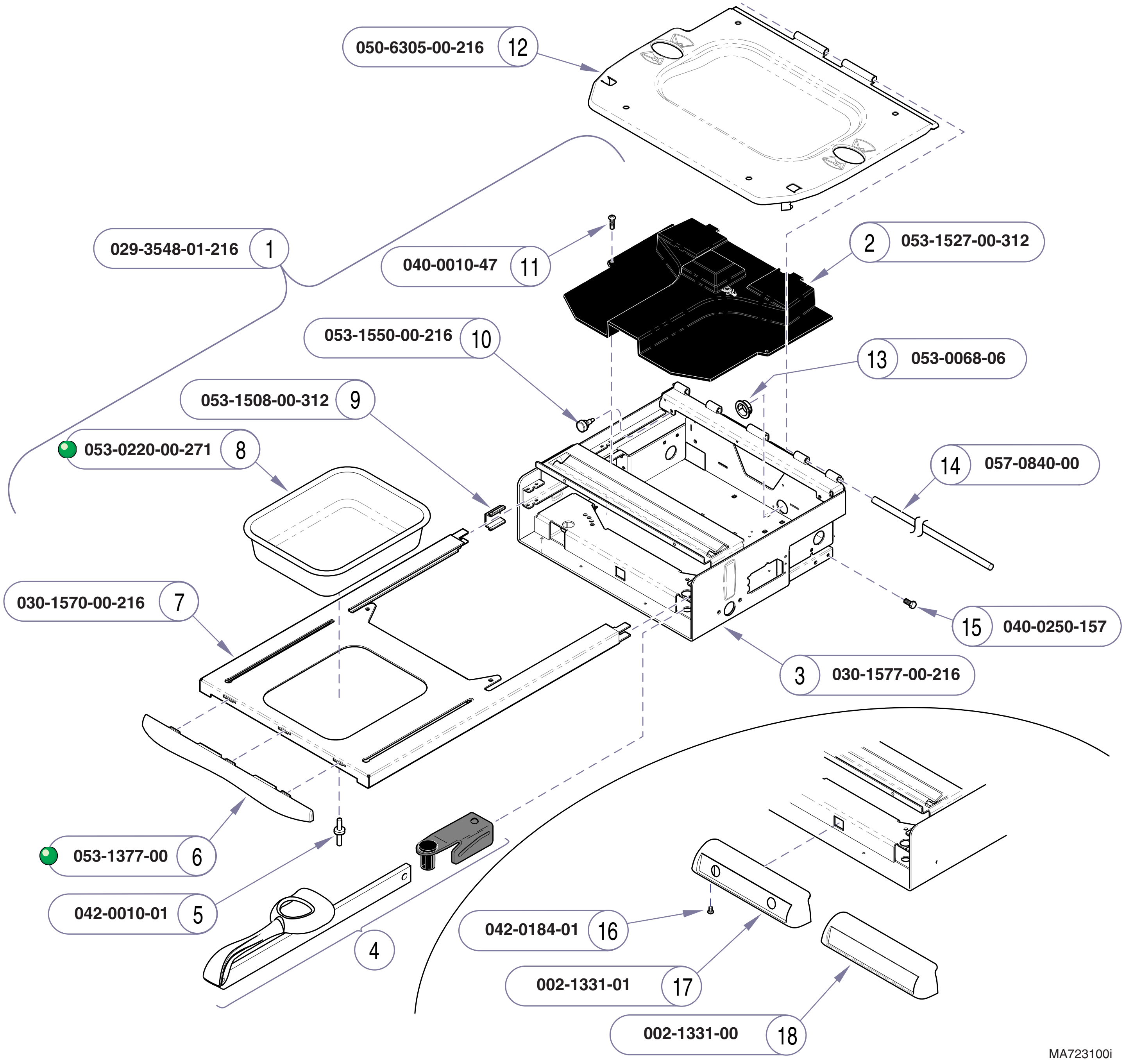
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042-0010-01 5
4
042-0184-01 16
002-1331-01 17
002-1331-00 18
MA723100i

Item	Description	Qty.
1	Upperwrap Assembly *(includes items 2 thru 11)*	1
2	• Stirrup Guide	1
3	• Upper Wrap Weldment	1
4	• Refer to: *"Stirrup Assembly"*	2
5	• Pop Rivot	2
6	• Foot Rest Trim	1
7	• Foot Rest Shelf	1
8	• Plastic Treatment Pan	1
9	• Runner Glide	4
10	• Stem Bumper	4
11	• Screw *(#10-24 x 3/8")*	2
12	Seat Mtg. Frame	1
13	Snap Bushing	3
14	Pivot Rod	1
15	Screw *(1/4"-20 x 1/2")*	4
16	Screw	2
17	Switch Housing and Label Kit *(without switch holes [includes label])*	1
18	Switch Housing and Label Kit *(with two switch holes [includes label])*	1

Always Specify Model & Serial Number

Midmark Upperwrap & Footrest Shelf

Models:	***622** (-007 & -008)*	***623** (-007 thru -010)*
Serial Numbers:	*prior to V323419*	*prior to V323419*

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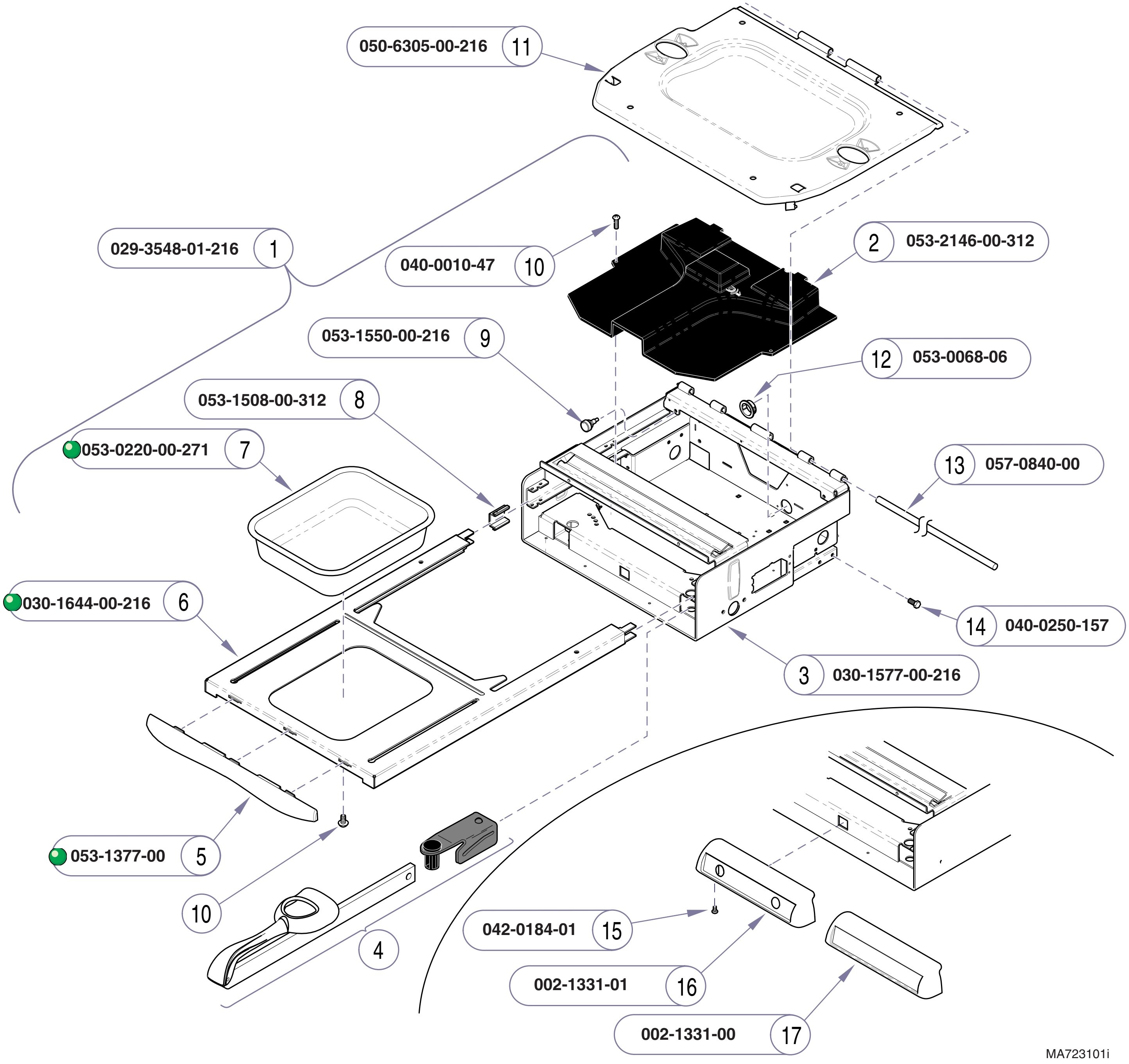
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042-0184-01 15
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002-1331-00 17
MA723101i

Item	Description	Qty.
1	Upperwrap Assembly *(includes items 2 thru 10)*	1
2	• Stirrup Guide	1
3	• Upper Wrap Weldment	1
4	• Refer to: *"Stirrup Assembly"*	2
5	• Foot Rest Trim	1
6	• Foot Rest Shelf	1
7	• Plastic Treatment Pan	1
8	• Runner Glide	4
9	• Stem Bumper	4
10	• Screw *(#10-24 x 3/8")*	4
11	Seat Mtg. Frame	1
12	Snap Bushing	3
13	Pivot Rod	1
14	Screw *(1/4"-20 x 1/2")*	4
15	Screw	2
16	Switch Housing and Label Kit *(without switch holes [includes label])*	1
17	Switch Housing and Label Kit *(with two switch holes [includes label])*	1

Always Specify Model & Serial Number

Models: Serial Numbers:	***622** (-007 & -008)* *V323419 thru present*	***623** (-007 thru -011)* *V323419 thru present*

Midmark Upperwrap & Footrest Shelf

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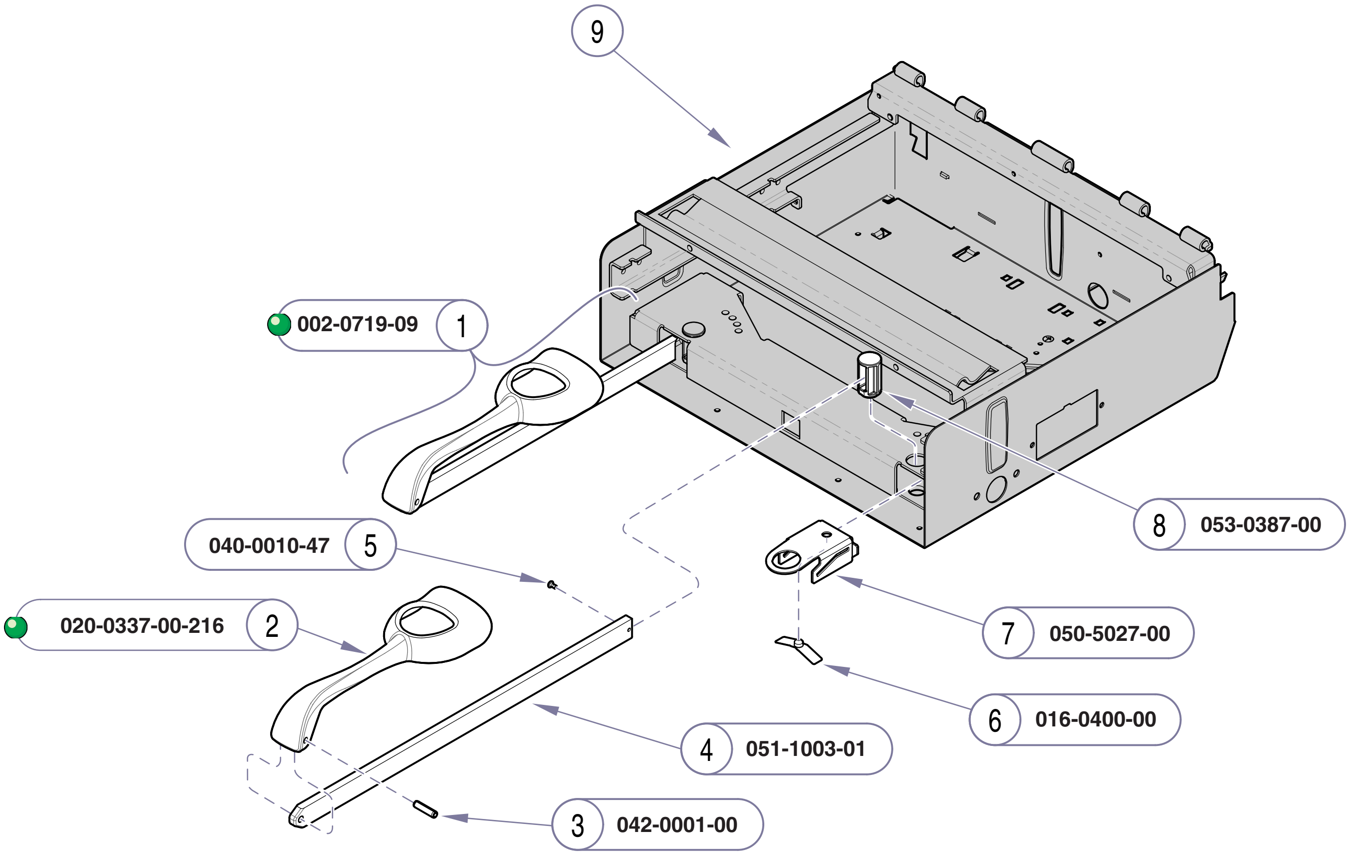
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051-1003-01
3
042-0001-00

MA703900I

Item	Description	Qty.
1	Stirrup Assembly Set (incl. two assemblies) *(includes items 2 thru 4)*	1
2	• Stirrup	1
3	• Roll Pin	1
4	• Stirrup Bar	1
5	Screw *(#10-24 x 3/8")*	2
6	Guide Bracket Spring	2
7	Guide Bracket	2
8	Pivot Boss	2
9	Refer to: *"Upperwrap & Footrest Shelf"*	Ref

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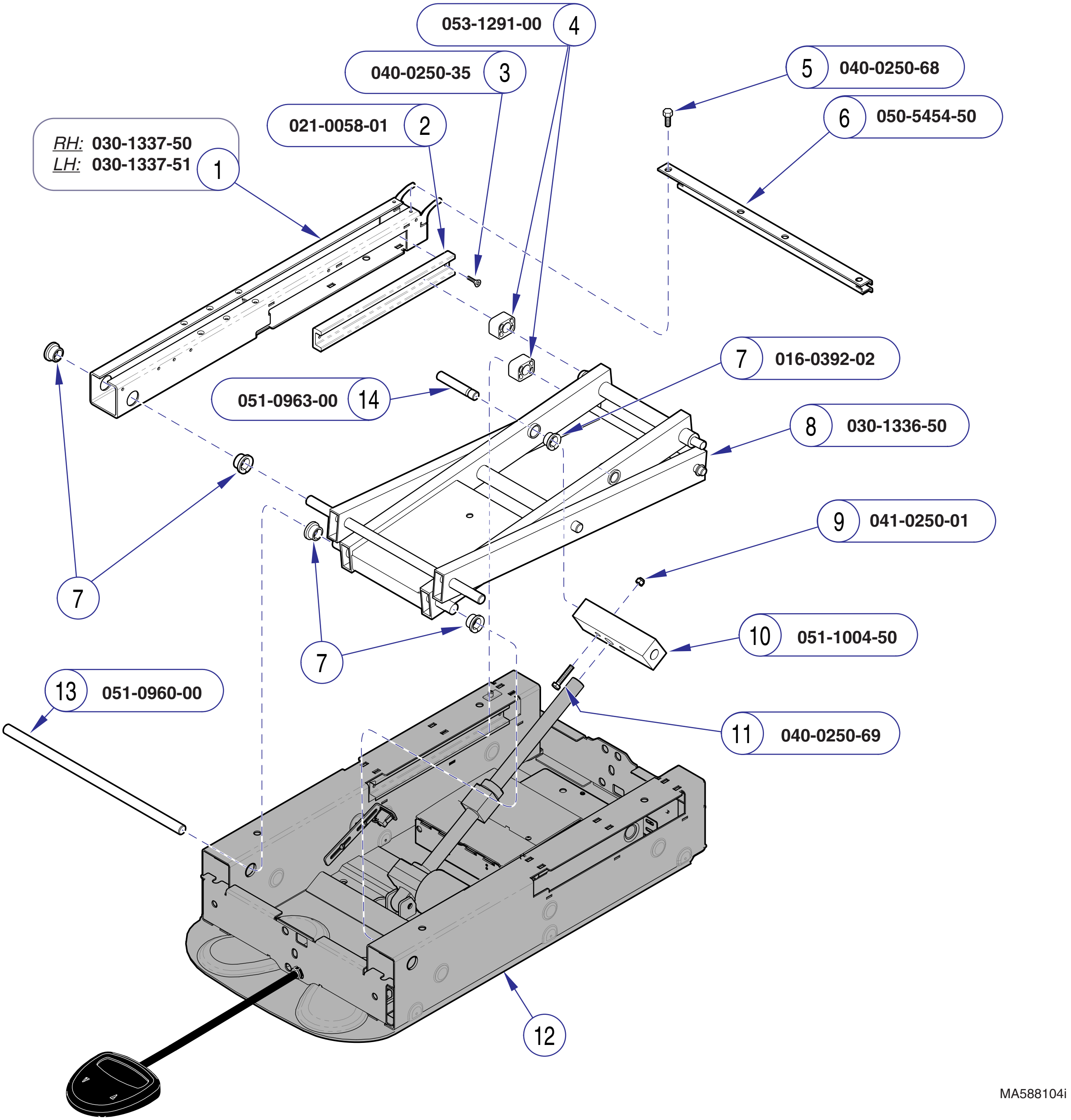
Ritter models E-20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13 051-0960-00
11 040-0250-69
12
MA588104i

Item	Description	Qty.
1	Scissor Channel Weldment *(RH shown)*	2
2	Extrusion Slide	2
3	Flat Head Screw *(1/4-20 x .5")*	4
4	Bearing Guide	4
5	Screw *(1/4-20 type F)*	2
6	Top Cover Support Channel	1
7	Flange Bearing	8
8	Scissor Arm Weldment Kit	1
9	Lock Nut	2
10	Thru Block	1
11	Screw *(1/4-20 x 2.25")*	2
12	*Refer to "Base Components"*	Ref
13	Pivot Shaft	1
14	Stub Shaft	2

Always Specify Model & Serial Number

Models: ***222*** ***(-001 thru -010)***
Serial Numbers:
RG1000 thru RG1123 *RH1000 thru RH1386*
RJ1000 thru RJ1094 *RK1000 thru RK1266*
RL1000 (one table) *RM1001 (one table)*

Base Scissor / Slide Mechanism

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Base Components:
Ritter models E-20.1*
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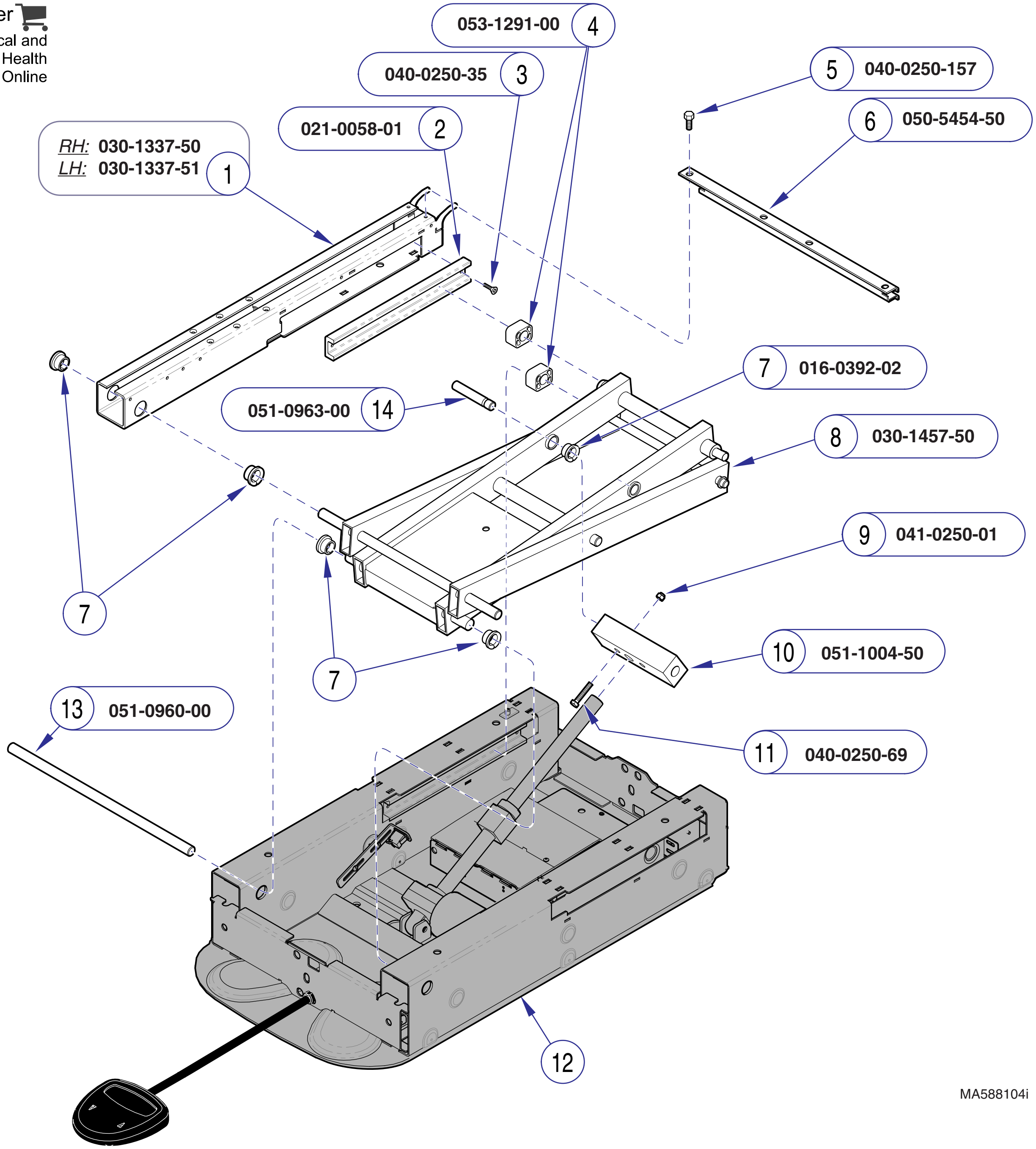
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6 050-5454-50
7 016-0392-02
8 030-1457-50
9 041-0250-01
10 051-1004-50
11 040-0250-69
12
13 051-0960-00
051-0963-00 14
7
7
MA588104i

Item	Description	Qty.
1	Scissor Channel Weldment *(RH shown)*	2
2	Extrusion Slide	2
3	Flat Head Screw *(1/4-20 x .5")*	4
4	Bearing Guide	4
5	Screw *(1/4-20 type F)*	2
6	Top Cover Support Channel	1
7	Flange Bearing	8
8	Scissor Arm Weldment Kit	1
9	Lock Nut	2
10	Thru Block	1
11	Screw *(1/4-20 x 2.25")*	2
12	*Refer to "Base Components"*	Ref
13	Pivot Shaft	1
14	Stub Shaft	2

Always Specify Model & Serial Number

Models: ***222** (-001 thru -010)*

Serial Numbers:

RG1124 thru RG1530	*RH1387 thru RH1820*
RJ1095 thru RJ1312	*RH1830 (one table)*
RK1267 thru RK1334	*RL1001 thru RL1060*
RM1001 thru RM1015	

Base Scissor / Slide Mechanism

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Base Components:

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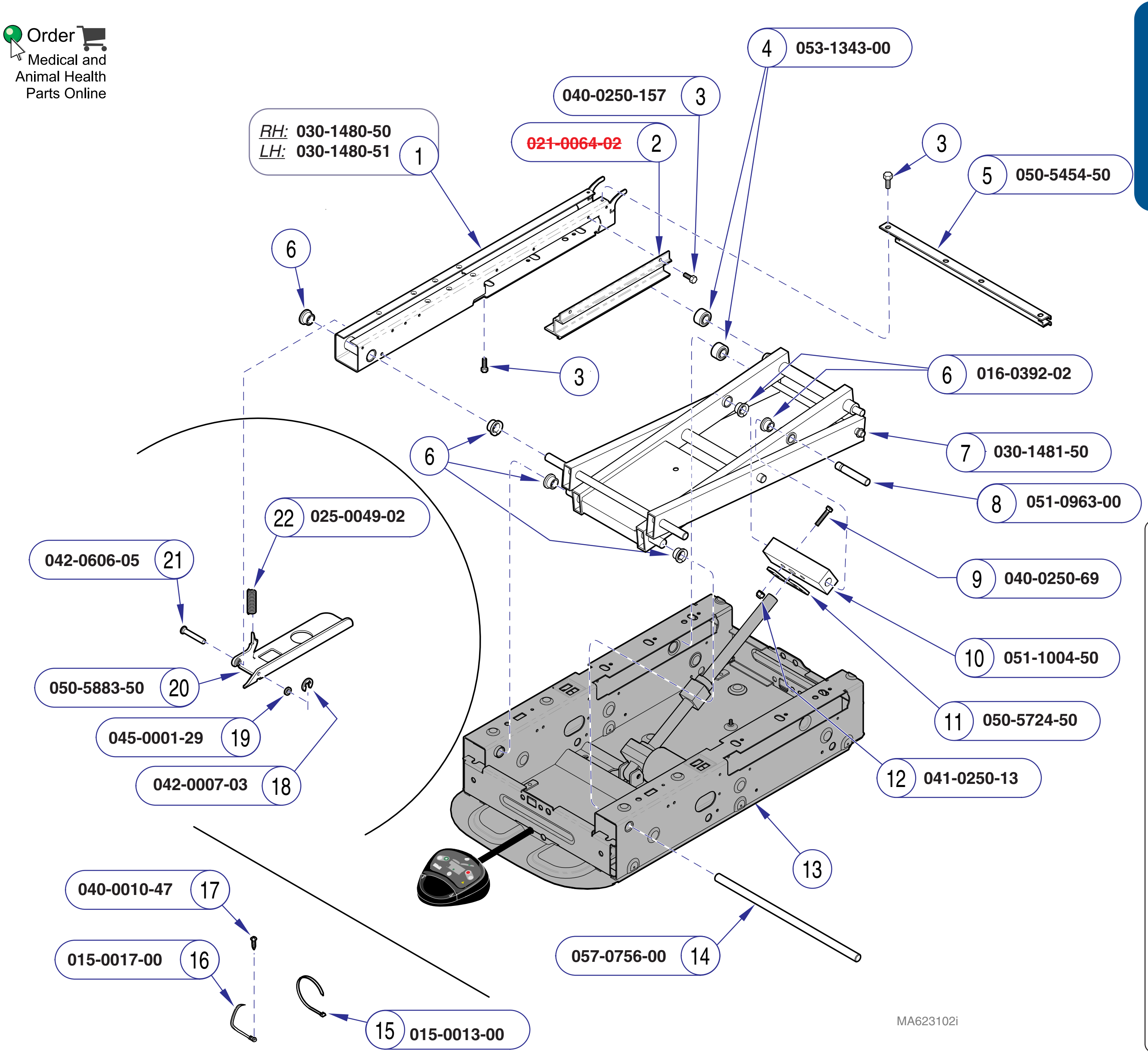
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8 051-0963-00
22 025-0049-02
042-0606-05 21
9 040-0250-69
10 051-1004-50
050-5883-50 20
11 050-5724-50
045-0001-29 19
042-0007-03 18
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13
040-0010-47 17
015-0017-00 16
057-0756-00 14
15 015-0013-00
MA623102i

Item	Description	Qty.
1	Scissor Channel Weldment *(RH shown)*	2
2	Extrusion Slide	2
3	Flat Head Screw *(1/4-20 x 1/2")*	4
4	Bearing Guide	4
5	Top Cover Support Channel	1
6	Flange Bearing	6
7	Scissor Arm Weldment Kit	1
8	Stub Shaft	2
9	Screw *(1/4"-20 x 2.25")*	2
10	Thru Block	1
11	Thru Block Bracket	1
12	Lock Nut *(1/4"-20)*	2
13	*Refer to "Base Components"*	Ref
14	Pivot Shaft	1
15	Cable Tie	1
16	Cable Tie w/screw hole	3
17	Screw *(10-24 x .37")*	3
	Items 18 thru 22 apply only to 623 models	
18	E-clip	1
19	Washer	1
20	Auto-return Switch Strike	1
21	Clevis Pin	1
22	Spring	1

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***222*** *(all)*		***223*** *(all)*	***622*** *(all)*	***623*** *(all)*
	RG1531 thru present *RJ1313 thru present* *RK1335 thru present* *RM1016 thru present*	*RH1821 thru RH1829* *RH1831 thru present* *RL1061 thru present* *V2200 thru V489138*	*V2200 thru V489138 & all prefixes: SC, SD, SE, SF, SG, SH*	*V2200 thru V489138 & all prefixes: SJ, SK, SN, SP*	*V2200 thru V489138 & all prefixes: SL, SM, SR, SS*

Base Scissor / Slide Mechanism

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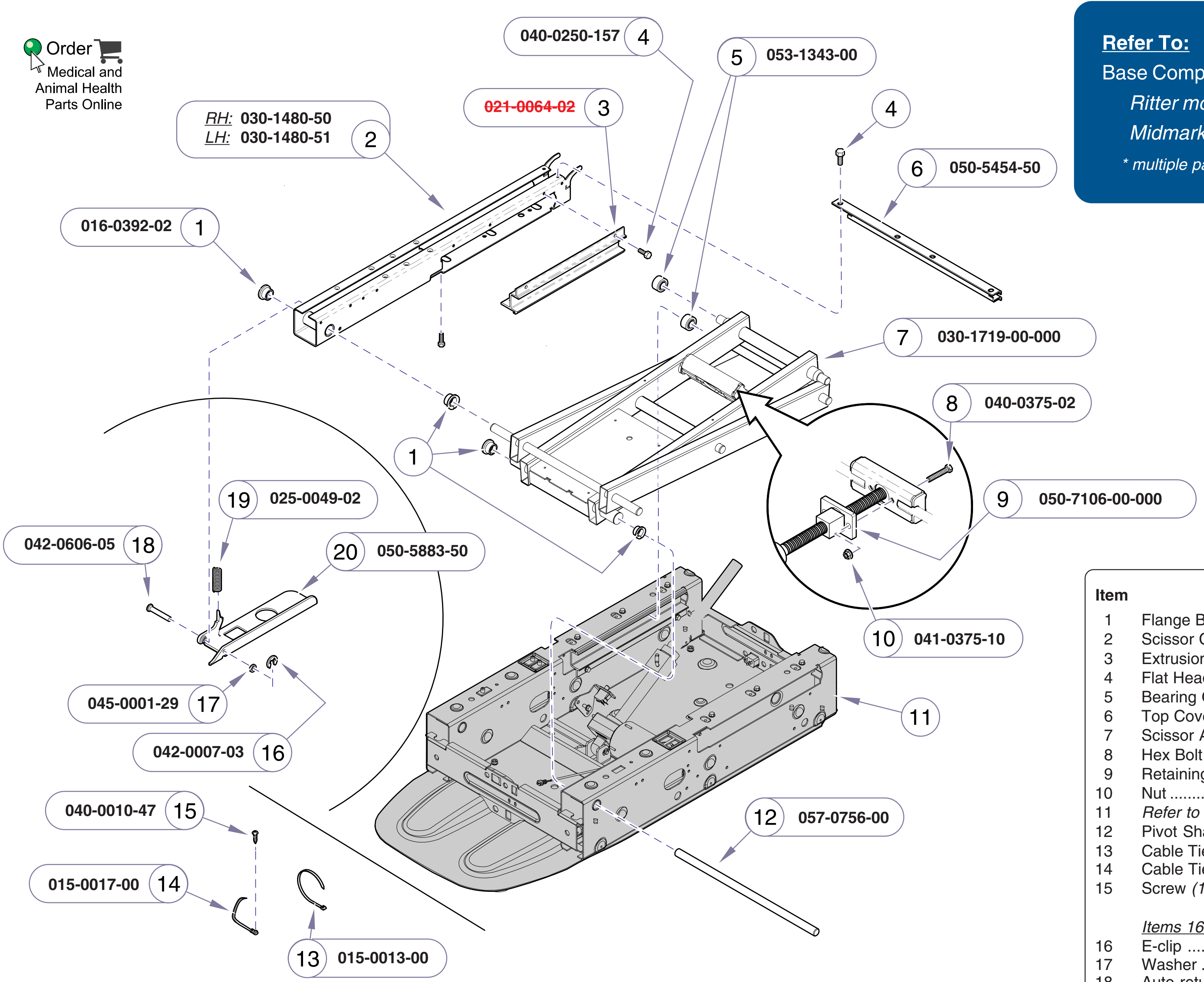
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19 025-0049-02
9 050-7106-00-000
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20 050-5883-50
10 041-0375-10
045-0001-29 17
11
042-0007-03 16
040-0010-47 15
12 057-0756-00
015-0017-00 14
13 015-0013-00

Item	Description	Qty.
1	Flange Bearing	6?
2	Scissor Channel Weldment *(RH shown)*	2
3	Extrusion Slide	2
4	Flat Head Screw *(1/4-20 x 1/2")*	4
5	Bearing Guide	4
6	Top Cover Support Channel	1
7	Scissor Arm Weldment Kit	1
8	Hex Bolt *(3/8"-16 x 1 1/4")*	2
9	Retaining Plate	1
10	Nut	2
11	*Refer to "Base Components"*	Ref
12	Pivot Shaft	1
13	Cable Tie	1
14	Cable Tie w/screw hole	3
15	Screw *(10-24 x .37")*	3
	Items 16 thru 20 apply only to 623 models	
16	E-clip	1
17	Washer	1
18	Auto-return Switch Strike	1
19	Clevis Pin	1
20	Spring	1

Always Specify Model & Serial Number

Base Scissor / Slide Mechanism

Models: Serial Numbers:	*222 (-015 thru -017)* *V489139 thru V798445*	*223 (-015 & -016)* *V489139 thru V798445*	*622 (-007 & -008)* *V489139 thru V798445*	*623 (-007 thru -010)* *V489139 thru V798445*

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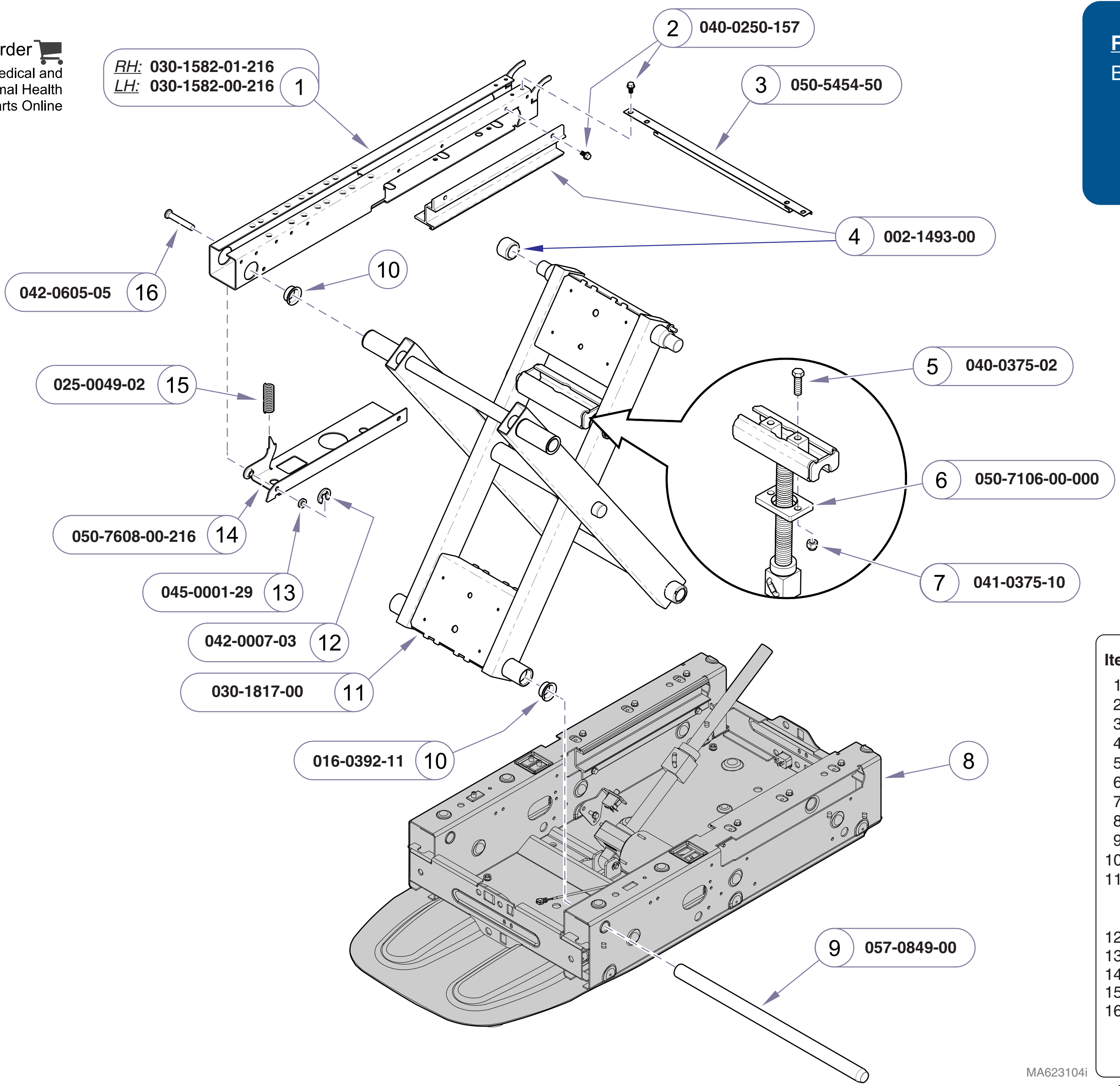
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7 041-0375-10
8
9 057-0849-00
016-0392-11 10
030-1817-00 11
042-0007-03 12
045-0001-29 13
050-7608-00-216 14
025-0049-02 15
042-0605-05 16
10
MA623104i

Item	Description	Qty.
1	Scissor Channel Weldment *(RH shown)*	2
2	Flat Head Screw *(1/4-20 x 1/2")*	4
3	Top Cover Support Channel	1
4	Kit, Scissor Rollers	1
5	Hex Bolt *(3/8"-16 x 1 1/4")*	2
6	Retaining Plate	1
7	Nut	2
8	*Refer to "Base Components"*	Ref
9	Pivot Shaft	1
10	Flange Bearing	6
11	Scissor Arm Weldment Kit	1
	Items 12 thru 16 apply only to 623 models	
12	E-clip	1
13	Washer	1
14	Auto-return Switch Strike	1
15	Spring	1
16	Clevis Pin	1

Always Specify Model & Serial Number

Models:	***222** (-015 thru -017)*	***223** (-015 & -016)*	***622** (-007 & -008)*	***623** (-007 thru -010)*
Serial Numbers:	*V798446 thru V897639*	*V798446 thru V897639*	*V798446 thru V897639*	*V798446 thru V897639*

Base Scissor / Slide Mechanism

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Base Components:

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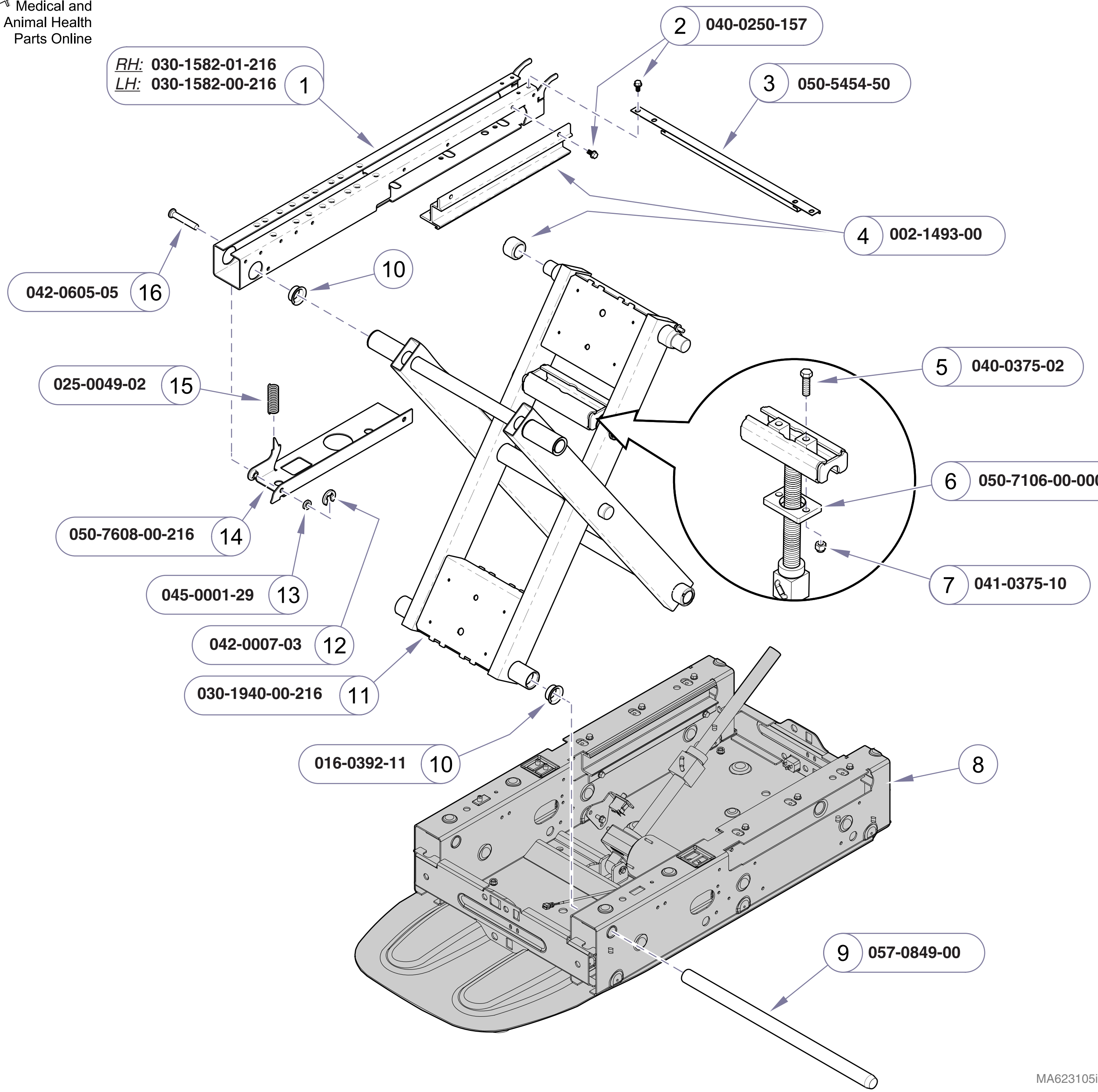
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10 016-0392-11
8
9 057-0849-00
MA623105i

Item	Description	Qty.
1	Scissor Channel Weldment *(RH shown)*	2
2	Flat Head Screw *(1/4-20 x 1/2")*	4
3	Top Cover Support Channel	1
4	Kit, Scissor Rollers	1
5	Hex Bolt *(3/8"-16 x 1 1/4")*	2
6	Retaining Plate	1
7	Nut	2
8	*Refer to "Base Components"*	Ref
9	Pivot Shaft	1
10	Flange Bearing	6
11	Scissor Arm Weldment Kit	1
	Items 12 thru 16 apply only to 623 models	
12	E-clip	1
13	Washer	1
14	Auto-return Switch Strike	1
15	Spring	1
16	Clevis Pin	1

Always Specify Model & Serial Number

Base Scissor / Slide Mechanism

Models:	**222** *(-015 thru -017)*	**223** *(-015 & -016)*	**622** *(-007 & -008)*	**623** *(-007 thru -010)*
Serial Numbers:	*V897640 thru V1158421*	*V897640 thru V1158421*	*V897640 thru V1158421*	*V897640 thru V1158421*

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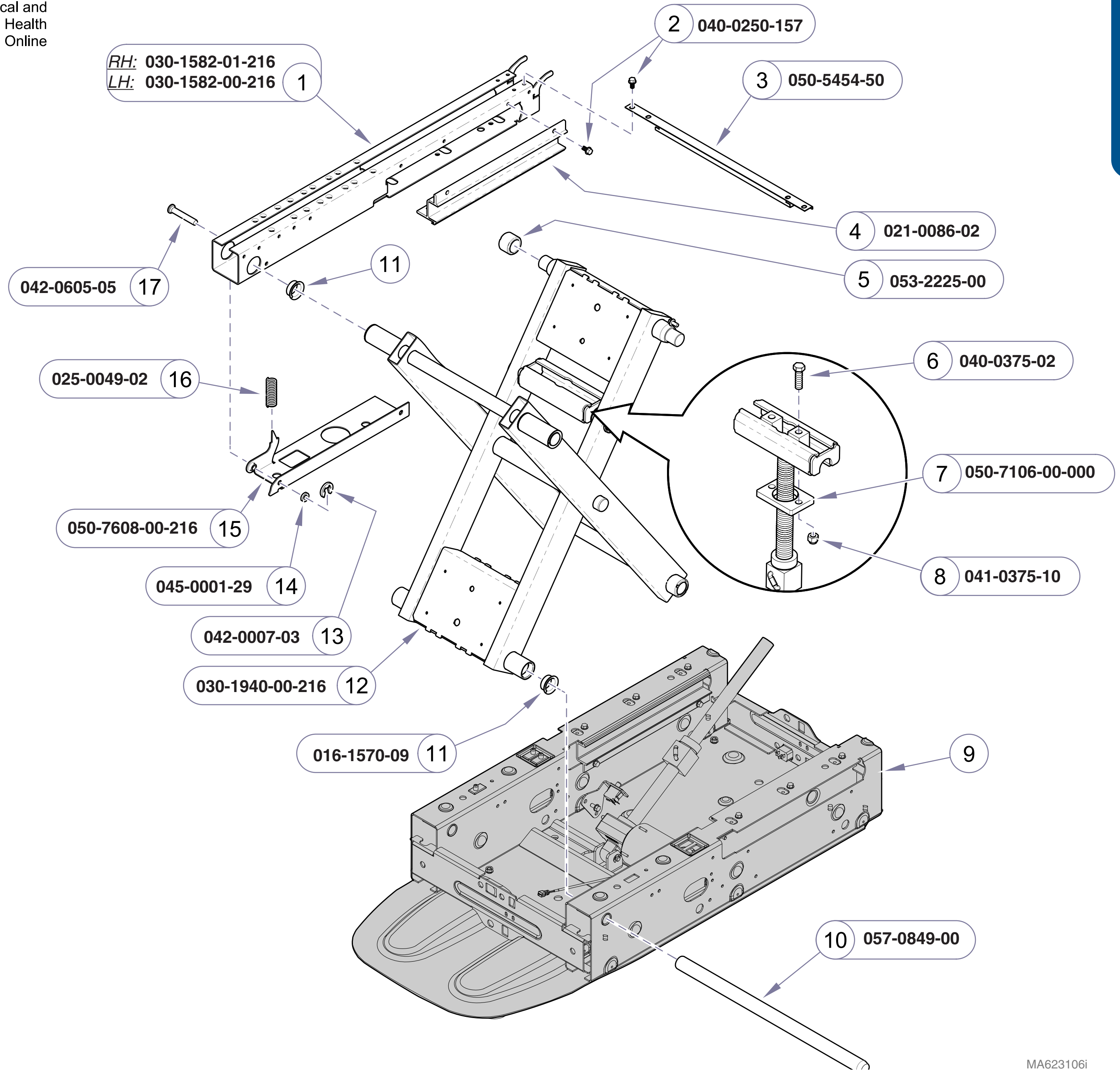
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025-0049-02 16
042-0605-05 17
MA623106i

Item	Description	Qty.
1	Scissor Channel Weldment *(RH shown)*	2
2	Flat Head Screw *(1/4-20 x 1/2")*	4
3	Top Cover Support Channel	1
4	Slide Extrusion	2
5	Bearing Guide	4
6	Hex Bolt *(3/8"-16 x 1 1/4")*	2
7	Retaining Plate	1
8	Nut	2
9	*Refer to "Base Components"*	Ref
10	Pivot Shaft	1
11	Flange Bearing	6
12	Scissor Arm Weldment Kit	1
	Items 13 thru 17 apply only to 623 models	
13	E-clip	1
14	Washer	1
15	Auto-return Switch Strike	1
16	Spring	1
17	Clevis Pin	1

Always Specify Model & Serial Number

Models: Serial Numbers:	**222** (-015 thru -017) V1158422 thru Present	**223** (-015 & -016) V1158422 thru Present	**622** (-007 & -008) V1158422 thru Present	**623** (-007 thru -011) V1158422 thru Present

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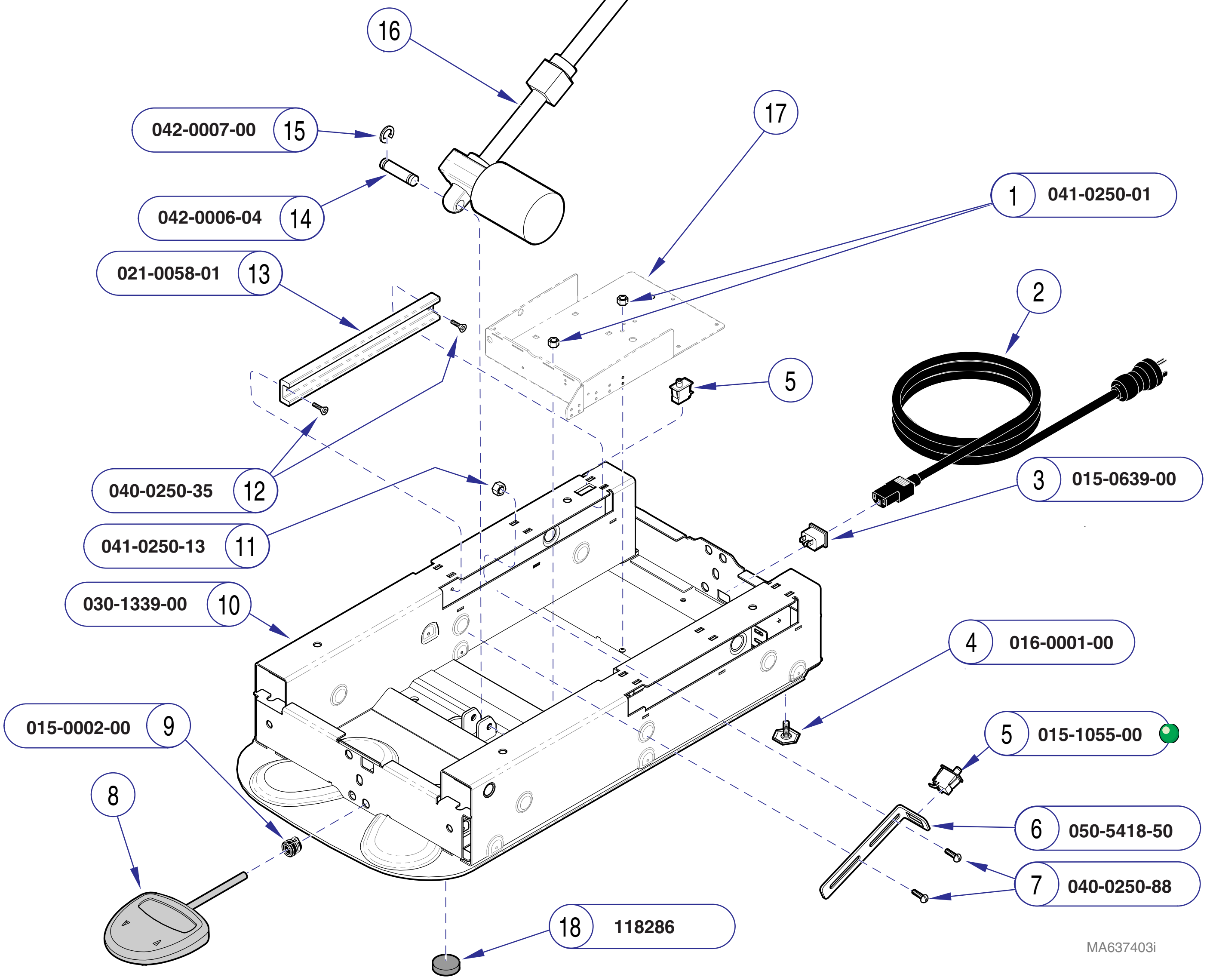
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015-0002-00 9
5 015-1055-00
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6 050-5418-50
7 040-0250-88
18 118286
MA637403i

Item	Description	Qty.
1	Nut	2
2	Refer to: *"Power Cords"*	1
3	IEC Inlet	1
4	Leveling Screw	2
5	Limit Switch	2
6	Limit Switch Bracket	1
7	Screw	2
8	Refer to: *"Foot Control"*	Ref
9	Strain Relief Bushing	1
10	Base Weldment	1
11	Nut	2
12	Flat Head Screw	4
13	Slide	2
14	Clevis Pin	1
15	E-Ring	2
16	Refer to: *"Base Actuator"*	Ref
17	Refer to: *"PC board Enclosure"*	Ref
18	Non-Skid Pad	2

Always Specify Model & Serial Number

Models: ***222*** ***(-001 thru -010)***
Serial Numbers:
RG1000 thru RG1123 *RH1000 thru RH1386*
RJ1000 thru RJ1094 *RL1000 (one table)*
RK1000 thru RK1266 *RM1000 (one table)*

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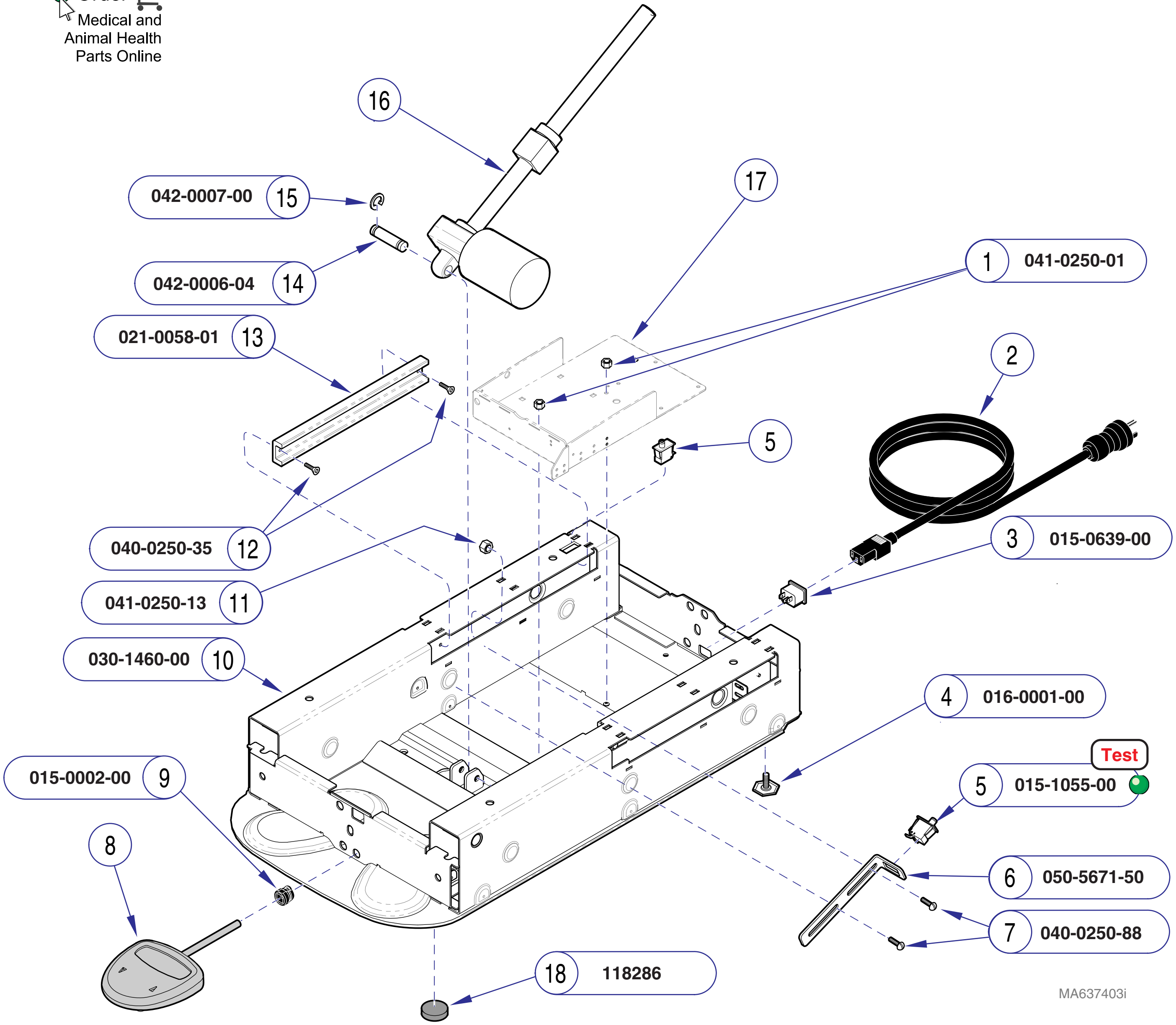
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041-0250-13 11
030-1460-00 10
4 016-0001-00
Test
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015-0002-00 9
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6 050-5671-50
7 040-0250-88
18 118286
MA637403i

Item	Description	Qty.
1	Nut	2
2	Refer to: *"Power Cords"*	1
3	IEC Inlet	1
4	Leveling Screw	2
5	Limit Switch	2
6	Limit Switch Bracket	1
7	Screw	2
8	Refer to: *"Foot Control"*	Ref
9	Strain Relief Bushing	1
10	Base Weldment	1
11	Nut	2
12	Flat Head Screw	4
13	Slide	2
14	Clevis Pin	1
15	E-Ring	2
16	Refer to: *"Base Actuator"*	Ref
17	Refer to: *"PC board Enclosure"*	Ref
18	Non-Skid Pad	2

Always Specify Model & Serial Number

Models: ***222** (-001 thru -010)*
Serial Numbers:

RG1124 thru RG1530	*RH1387 thru RH1821*
RJ1095 thru RJ1312	*RH1831 thru RH1832*
RL1001 thru RL1060	*RM1001 thru RM1015*
RK1267 thru RK1334	

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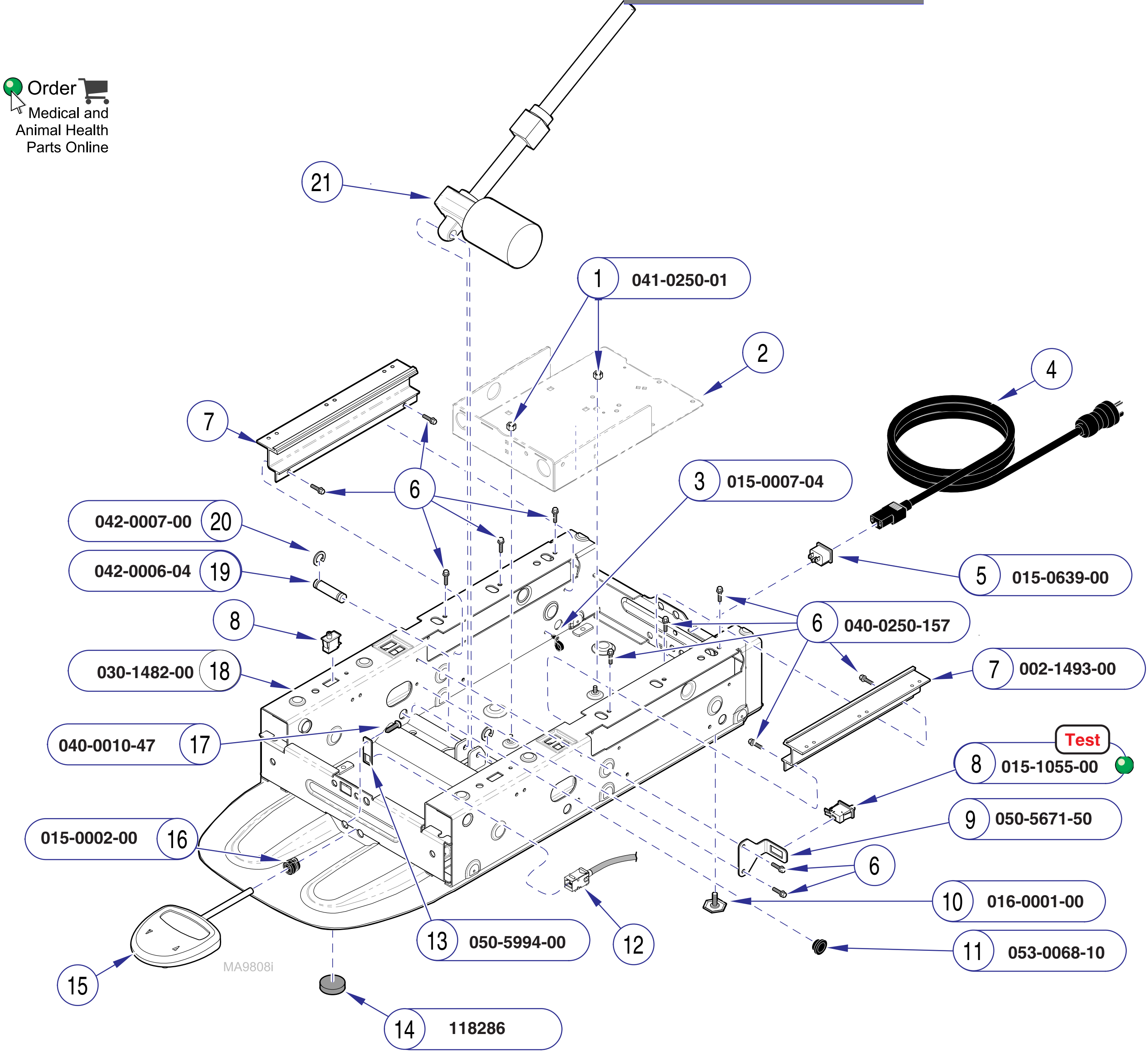
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MA9808i
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002-1493-00
Test
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015-1055-00
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050-5671-50
6
10
016-0001-00
11
053-0068-10

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	1
5	IEC Inlet	1
6	Screw	12
7	Kit, Scissor Rollers	1
8	Limit Switch	2
9	Limit Switch Bracket	1
10	Leveling Screw	2
11	Snap Bushing	1
12	Foot Control Inlet Harness *(223 only)* Ref: *Wiring Diagrams for PN*	Ref
13	Modular Plug Adapter Plate *(223 only)*	1
14	Non-Skid Pad	2
15	Refer to: *"Foot Control"*	Ref
16	Strain Relief Bushing *(222 only)*	1
17	Screw *(223 only)*	1
18	Base Weldment	1
19	Clevis Pin	1
20	E-Ring	2
21	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Models:
Serial Numbers:

***222** (-001 thru -014)*
RG1531 thru present
RJ1313 thru present
RL1061 thru present
RK1335 thru present
RH1822 thru RH1830
RH1833 thru present
RM1016 thru present
V2200 thru V58430

***223** (-001 thru -014)*
SC1000 thru present
SE1000 thru present
V2200 thru V58430
SD1000 thru present
SF1000 thru present

Ritter Base Components

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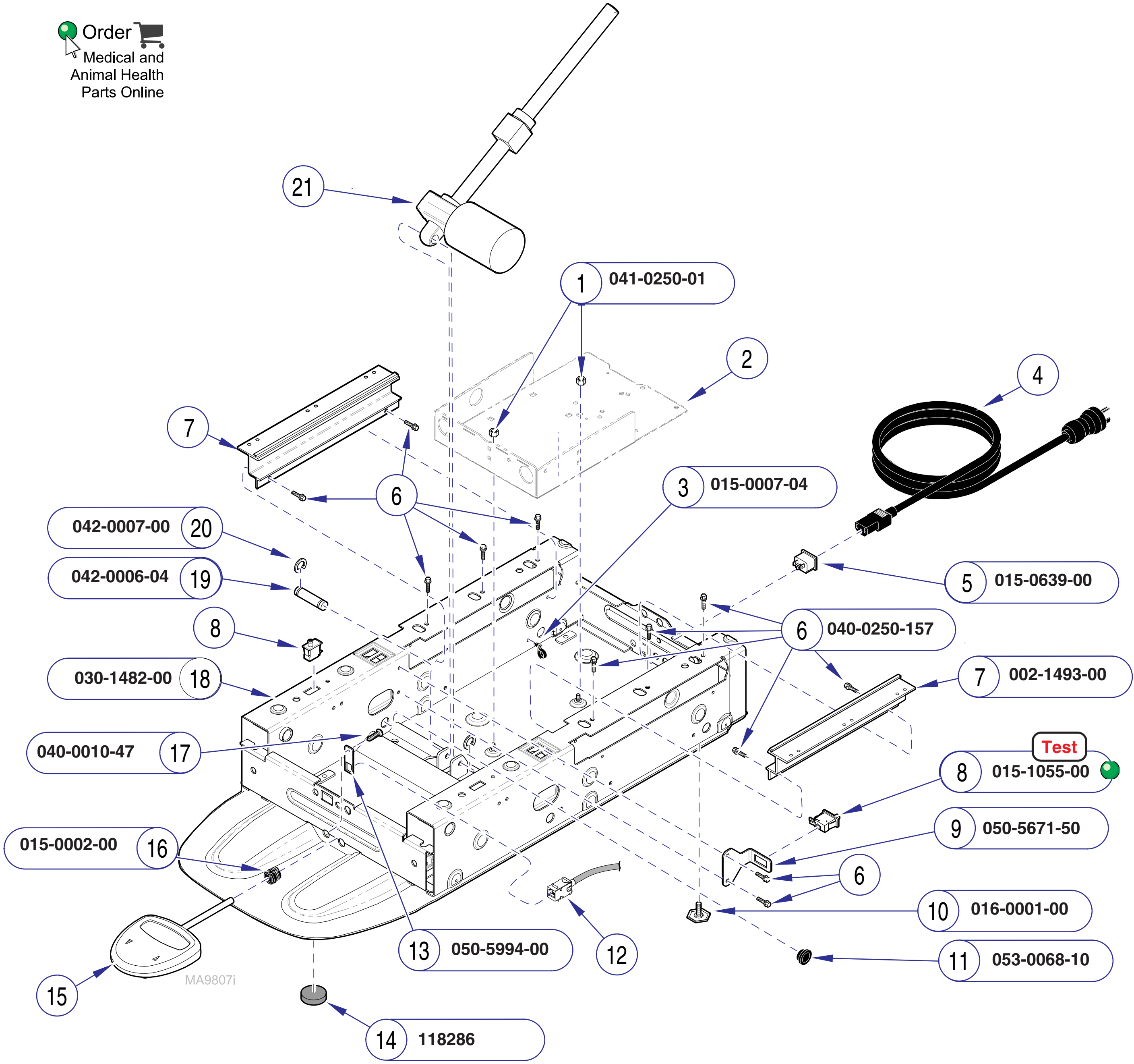
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040-0010-47 17
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223 .... E-28.1
Base Actuator E-22
PC Board Enclosure:
Manual Back models E-23
Power Back models E-24
Power Cords E-39

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	1
5	IEC Inlet	1
6	Screw	12
7	Kit, Scissor Rollers	1
8	Limit Switch	2
9	Limit Switch Bracket	1
10	Leveling Screw	2
11	Snap Bushing	1
12	Foot Control Inlet Harness *(223 only)* Ref: *Wiring Diagrams for PN*	Ref
13	Modular Plug Adapter Plate *(223 only)*	1
14	Non-Skid Pad	2
15	Refer to: *"Foot Control"*	Ref
16	Strain Relief Bushing *(222 only)*	1
17	Screw *(223 only)*	1
18	Base Weldment	1
19	Clevis Pin	1
20	E-Ring	2
21	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Ritter Base Components

Models:	***222 (-001 thru -014)***	***222 (-017)***	***223 (-001 thru -014)***
Serial Numbers:	*V58431 thru V1158421*	*V58431 thru V1158421*	*V58431 thru V1158421*

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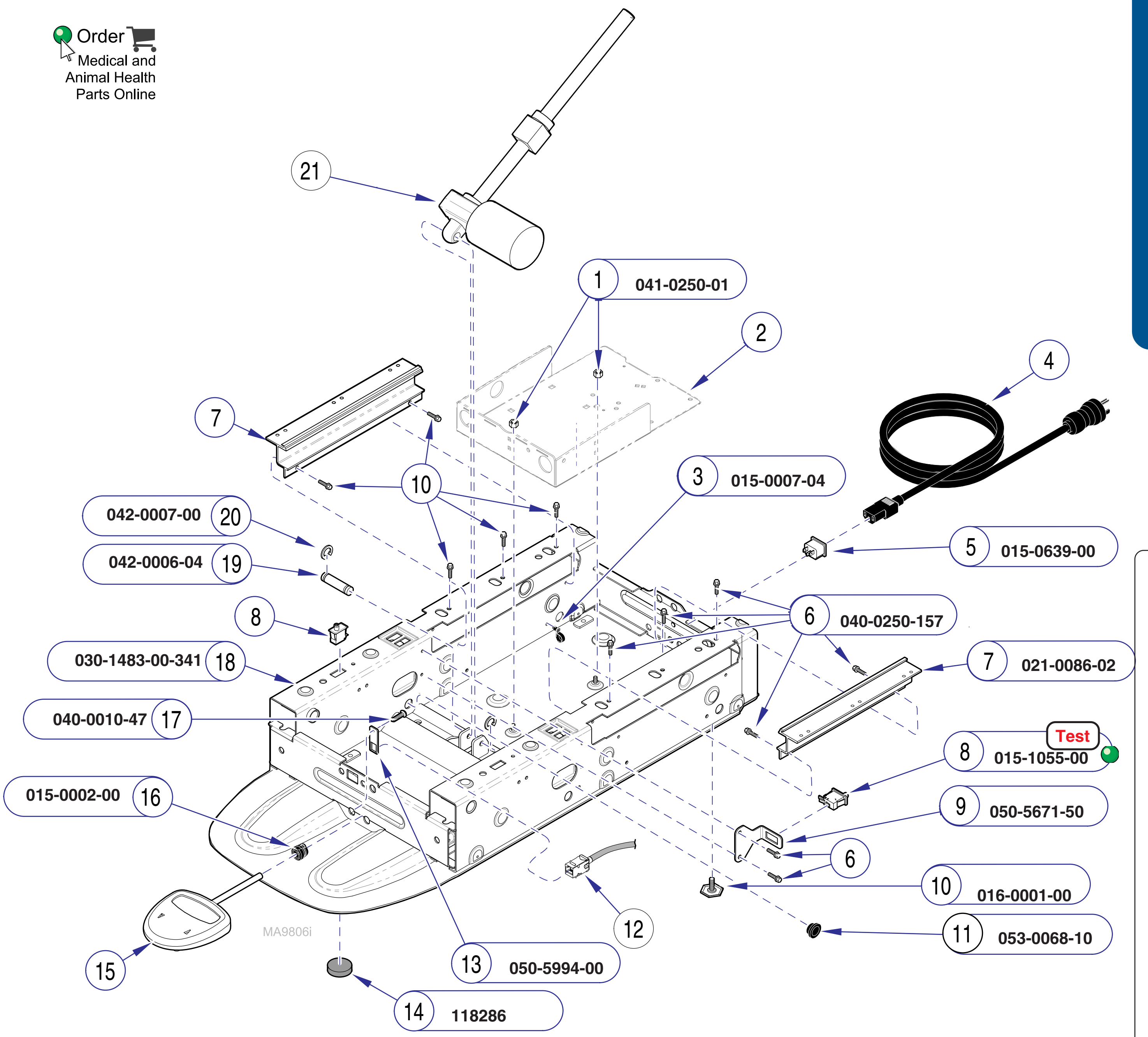
Base Actuator	E-22
PC Board Enclosure:	
Manual Back models	E-23
Power Back models	E-24
Power Cords	E-39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030-1483-00-341 18
7 021-0086-02
040-0010-47 17
Test
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015-0002-00 16
9 050-5671-50
6
10 016-0001-00
12
MA9806i
11 053-0068-10
15
13 050-5994-00
14 118286

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	1
5	IEC Inlet	1
6	Screw	12
7	Slide Extrusion	2
8	Limit Switch	2
9	Limit Switch Bracket	1
10	Leveling Screw	2
11	Snap Bushing	1
12	Foot Control Inlet Harness *(223 only)* Ref: *Wiring Diagrams for PN*	 Ref
13	Modular Plug Adapter Plate *(223 only)*	1
14	Non-Skid Pad	2
15	Refer to: *"Foot Control"*..........................	Ref
16	Strain Relief Bushing *(222 only)*	1
17	Screw *(223 only)*	1
18	Base Weldment	1
19	Clevis Pin	1
20	E-Ring	2
21	Refer to: *"Base Actuator"*.........................	Ref

Always Specify Model & Serial Number

Models: Serial Numbers:	***222*** *(-001 thru -014)* *V1158422 thru V1182653*	***222*** *(-017)* *V1158422 thru V1182653*	***223*** *(-001 thru -014)* *V1158422 thru V1182653*

Ritter Base Components

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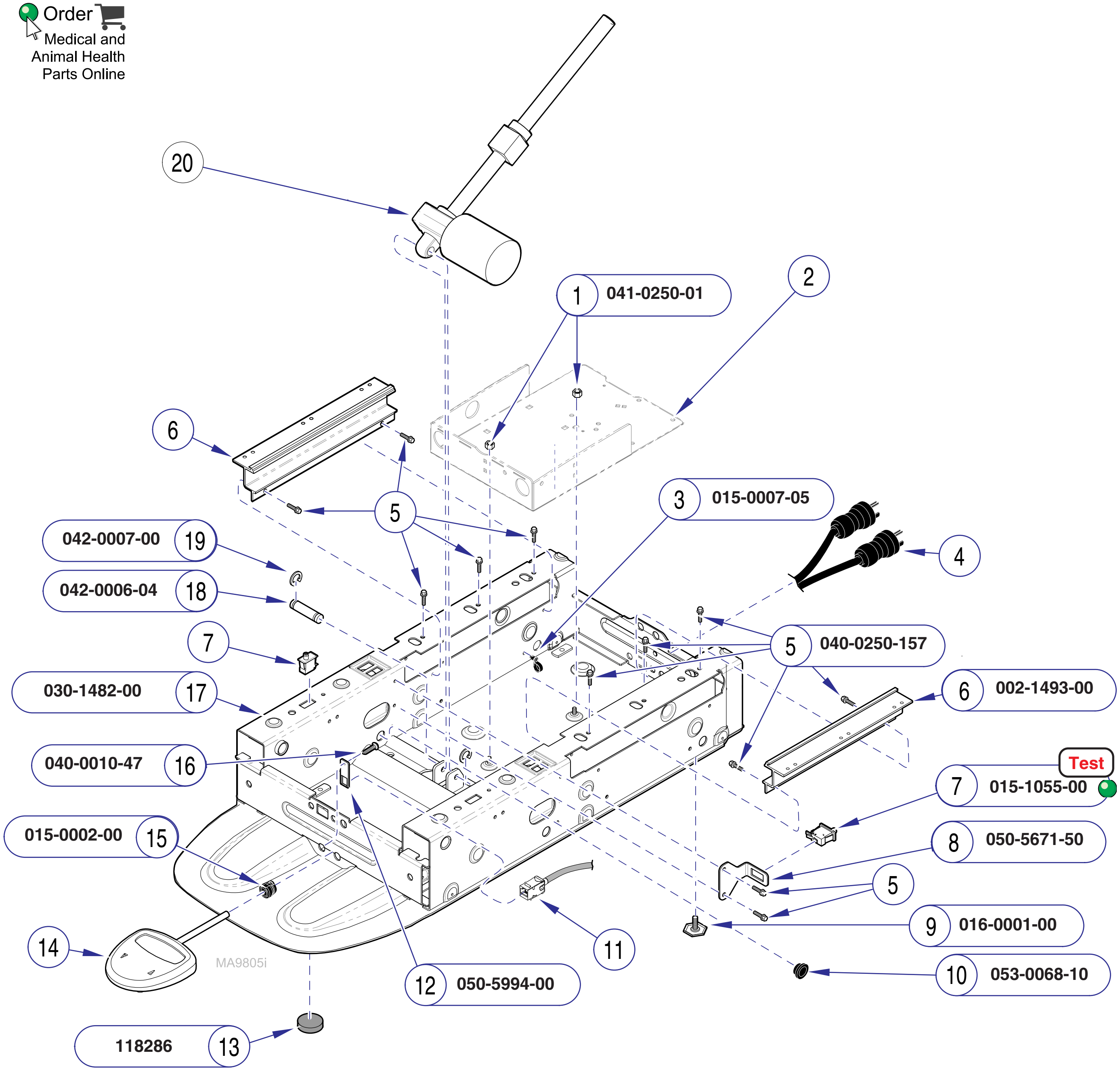
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Test
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015-0002-00 15
8 050-5671-50
5
9 016-0001-00
14
MA9805i
12 050-5994-00
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10 053-0068-10
118286 13

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	1
5	Screw	12
6	Kit, Scissor Roller	1
7	Limit Switch	2
8	Limit Switch Bracket	1
9	Leveling Screw	2
10	Snap Bushing	1
11	Foot Control Inlet Harness *(223 Only)*	
	Ref: *Wiring Diagrams for PN*	Ref
12	Modular Plug Adapter Plate *(223 only)*	1
13	Non-Skid Pad	2
14	Refer to: *"Foot Control"*	Ref
15	Strain Relief Bushing *(222 only)*	1
16	Screw *(223 only)*	1
17	Base Weldment	1
18	Clevis Pin	1
19	E-Ring	2
20	Refer to: *"Base Actuator"*	Ref

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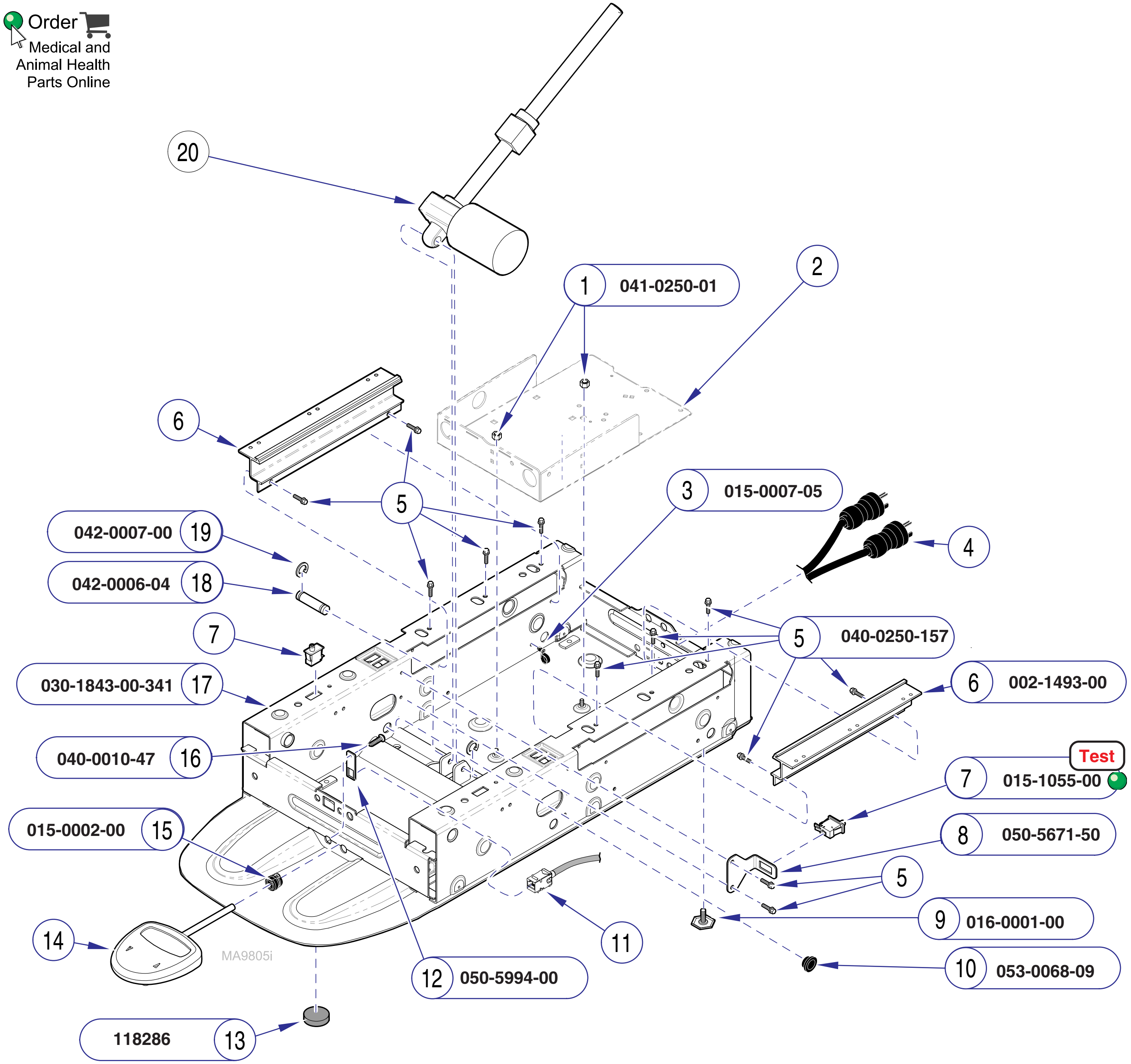
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040-0010-47 16
Test
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015-0002-00 15
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9 016-0001-00
14
11
MA9805i
10 053-0068-09
12 050-5994-00
118286 13

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	1
5	Screw	12
6	Kit, Scissor Rollers	1
7	Limit Switch	2
8	Limit Switch Bracket	1
9	Leveling Screw	2
10	Snap Bushing	1
11	Foot Control Inlet Harness *(223 Only)* Ref: *Wiring Diagrams for PN*	Ref
12	Modular Plug Adapter Plate *(223 only)*	1
13	Non-Skid Pad	2
14	Refer to: *"Foot Control"*	Ref
15	Strain Relief Bushing *(222 only)*	1
16	Screw *(223 only)*	1
17	Base Weldment	1
18	Clevis Pin	1
19	E-Ring	2
20	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Models: Serial Numbers:	***222*** ***(-015 & -016)*** *V798446 thru V1158421*	***223*** ***(-015 & -016)*** *V798446 thru V1158421*

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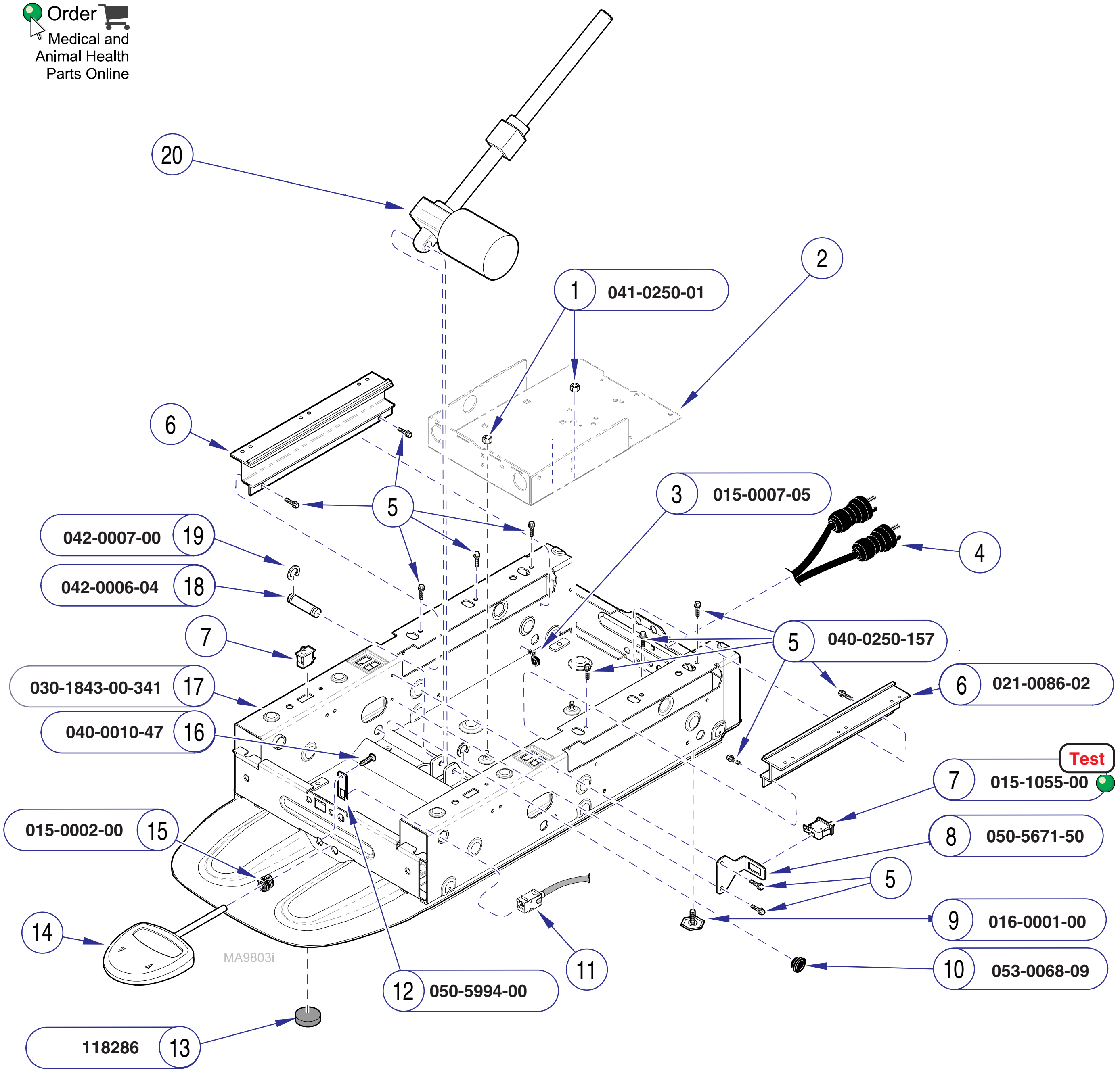
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9 016-0001-00
14
10 053-0068-09
MA9803i
12 050-5994-00
11
118286 13

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	1
5	Screw	12
6	Slide Extrusion	2
7	Limit Switch	2
8	Limit Switch Bracket	1
9	Leveling Screw	2
10	Snap Bushing	1
11	Foot Control Inlet Harness *(223 Only)*	
	Ref: *Wiring Diagrams for PN*	Ref
12	Modular Plug Adapter Plate *(223 only)*	1
13	Non-Skid Pad	2
14	Refer to: *"Foot Control"*	Ref
15	Strain Relief Bushing *(222 only)*	1
16	Screw *(223 only)*	1
17	Base Weldment	1
18	Clevis Pin	1
19	E-Ring	2
20	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Ritter Base Components

Models:	**222** *(-015 & -016)*	**223** *(-015 & -016)*
Serial Numbers:	V1158422 thru V1182653	V1158422 thru V1182653

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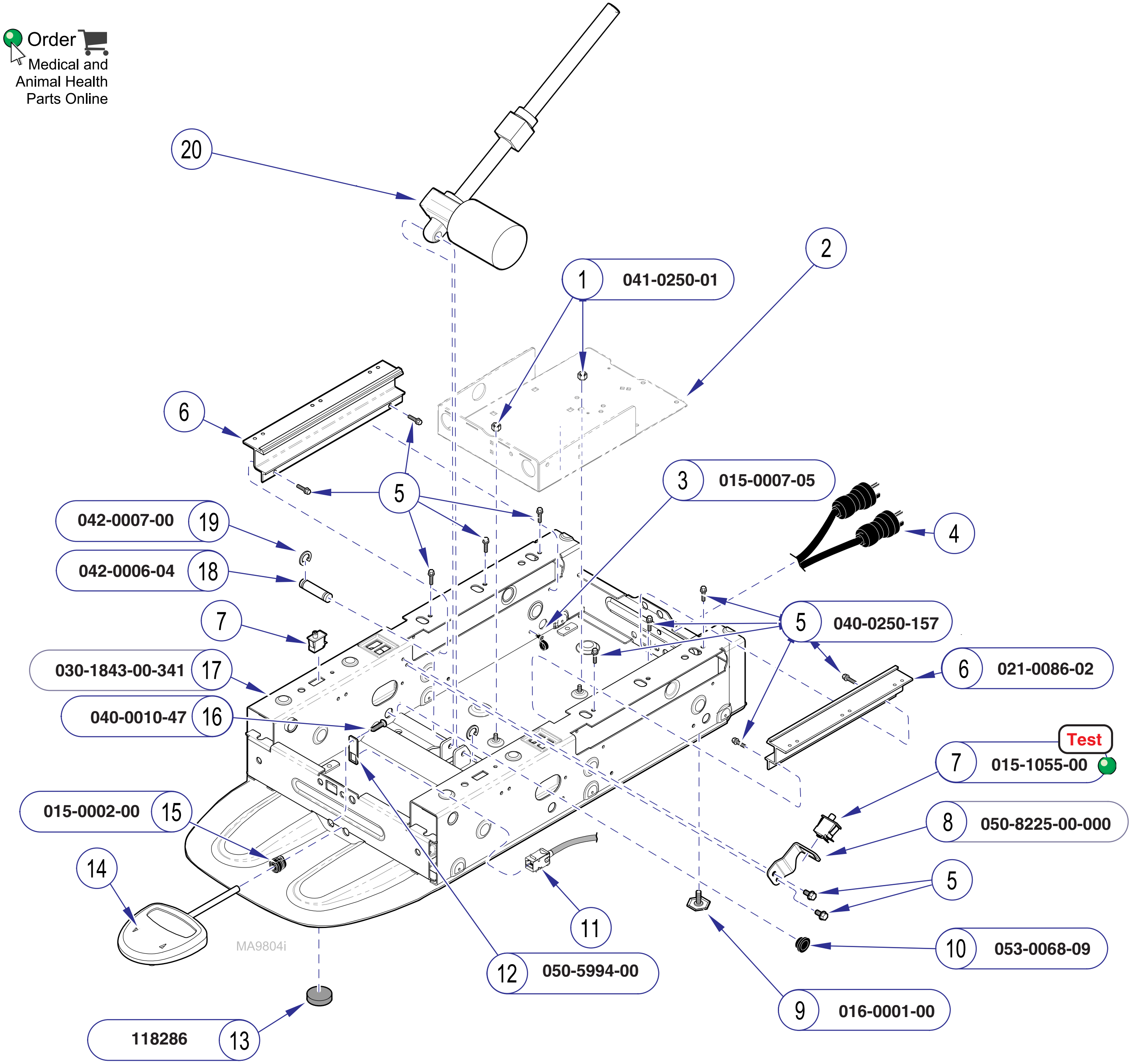
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015-0002-00 15
14
MA9804i
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10 053-0068-09
9 016-0001-00
118286 13

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	1
5	Screw	12
6	Slide Extrusion	2
7	Limit Switch	2
8	Limit Switch Bracket	1
9	Leveling Screw	2
10	Snap Bushing	1
11	Foot Control Inlet Harness *(223 Only)* Ref: *Wiring Diagrams for PN*	Ref
12	Modular Plug Adapter Plate *(223 only)*	1
13	Non-Skid Pad	2
14	Refer to: *"Foot Control"*	Ref
15	Strain Relief Bushing *(222 only)*	1
16	Screw *(223 only)*	1
17	Base Weldment	1
18	Clevis Pin	1
19	E-Ring	2
20	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***222** (-016)* *V1182654 thru Present*	***223** (-016)* *V1182654 thru Present*

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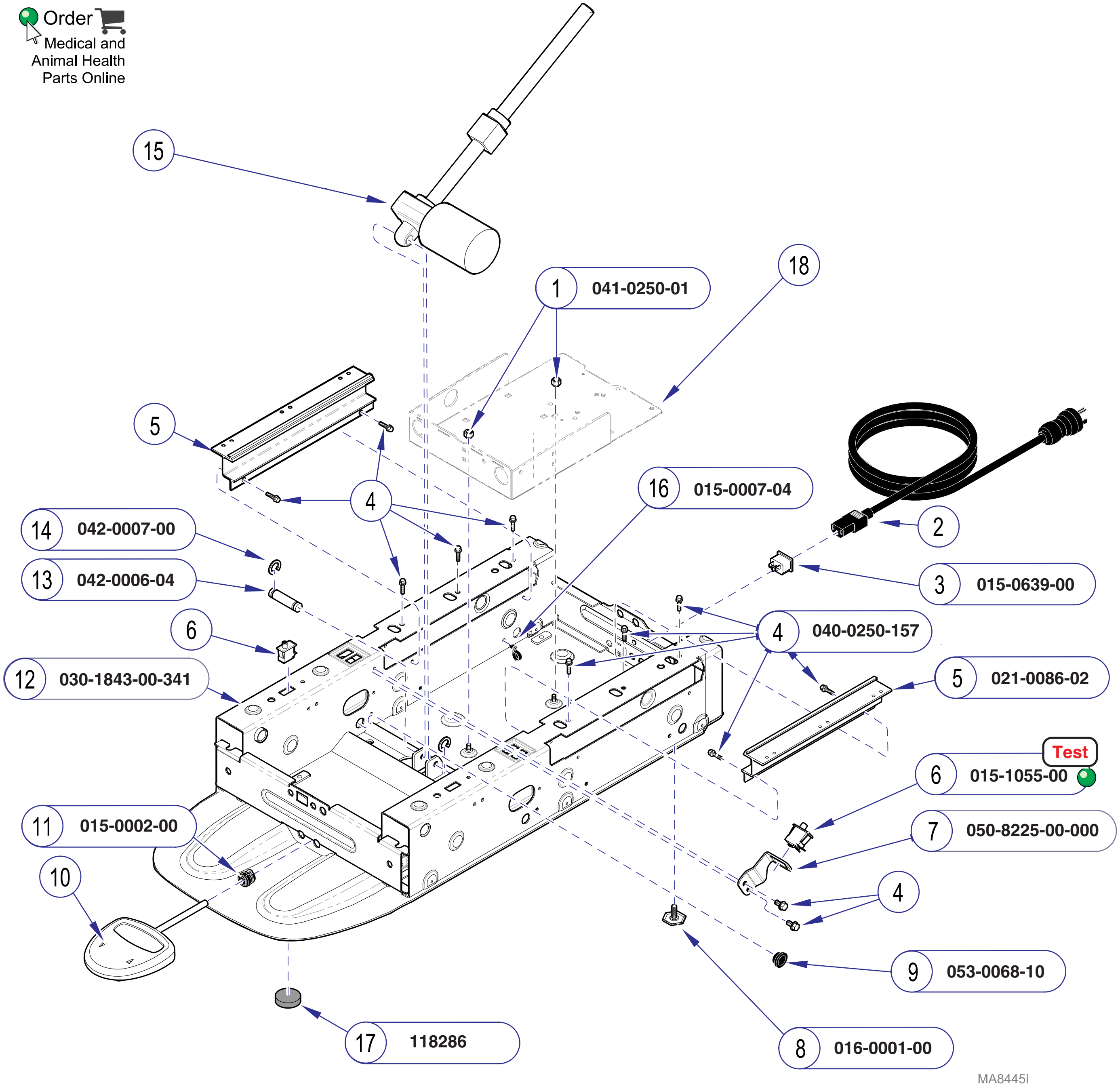
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053-0068-10
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118286
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016-0001-00
MA8445i

Item	Description	Qty.
1	Nut	2
2	Refer to: *"Power Cords"*	1
3	IEC Inlet	1
4	Screw	12
5	Slide Extrusion	2
6	Limit Switch	2
7	Limit Switch Bracket	1
8	Leveling Screw	2
9	Snap Bushing	1
10	Refer to: *"Foot Control"*	Ref
11	Strain Relief Bushing	1
12	Base Weldment	1
13	Clevis Pin	1
14	E-Ring	2
15	Refer to: *"Base Actuator"*	Ref
16	Wrap-N-Tap Wire Clamp	3
17	Non-Skid Pad	2
18	Refer to: *"PC board Enclosure"*	Ref

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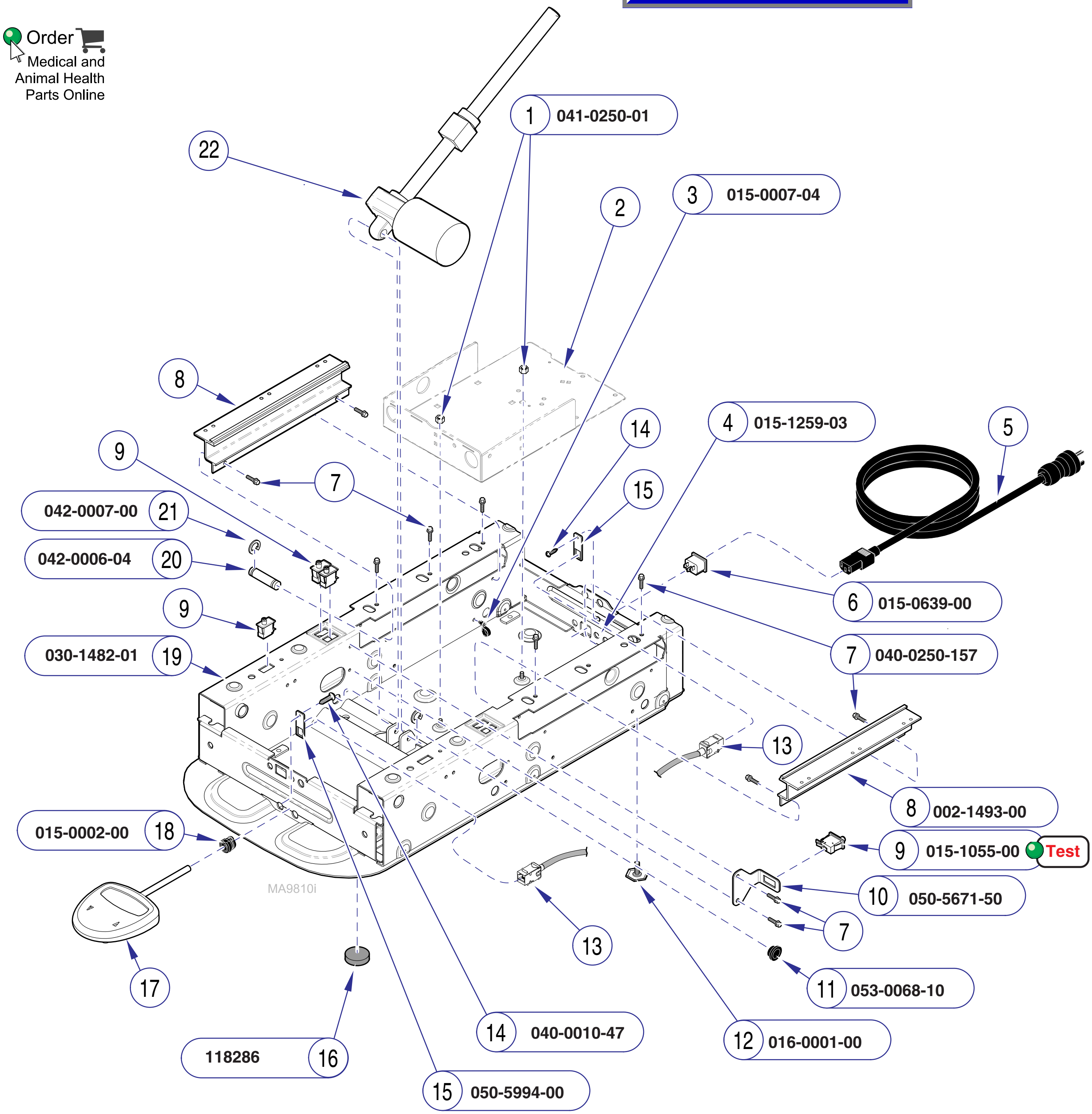
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15 050-5994-00

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Power Back models E-24
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Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Fuseholder *(622 & 623-003/-004)*	2
5	Refer to: *"Power Cords"*	Ref
6	IEC Inlet	1
7	Screw	12
8	Kit, Scissor Rollers	1
9	Limit Switch	4
10	Limit Switch Bracket	1
11	Snap Bushing	1
12	Leveling Screw	2
13	Foot Control Inlet Harness Ref: *Wiring Diagrams for PN*	 Ref
14	Screw *(622)* Screw *(623)*	1 2
15	Modular Plug Adapter Plate *(622)* Modular Plug Adapter Plate *(623)*	1 2
16	Non-Skid Pad	2
17	Refer to: *"Foot Control"*	Ref
18	Strain Relief Bushing *(622 only)*	1
19	Base Weldment	1
20	Clevis Pin	1
21	E-Ring	2
22	Refer to: *"Base Actuator"*	Ref

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Midmark Base Components

Models: *Serial Numbers:*

622 ***(-001 thru -006)***
SJ1000 thru present *SK1000 thru present*
V2200 thru V58433

623 ***(-001 thru -006)***
SL1000 thru present *SM1000 thru present*
V2200 thru V58433

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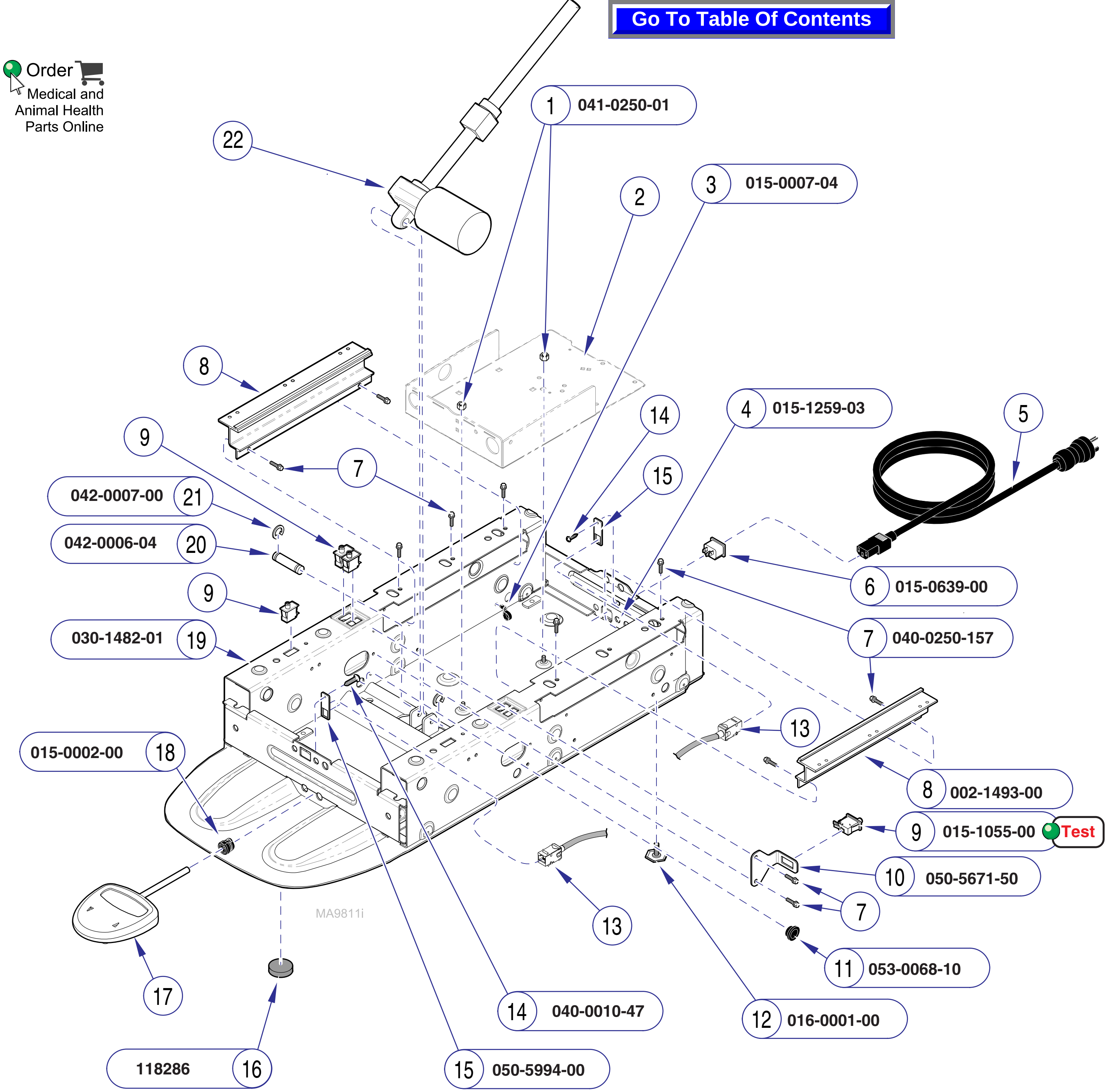
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Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Fuseholder *(622 & 623-003/-004)*	2
5	Refer to: *"Power Cords"*	Ref
6	IEC Inlet	1
7	Screw	12
8	Kit, Scissor Rollers	1
9	Limit Switch	4
10	Limit Switch Bracket	1
11	Snap Bushing	1
12	Leveling Screw	2
13	Foot Control Inlet Harness *(622 & 623)*	
	Ref: *Wiring Diagrams for PN*	Ref
14	Screw *(622)*	1
	Screw *(623)*	2
15	Modular Plug Adapter Plate *(622)*	1
	Modular Plug Adapter Plate *(623)*	2
16	Non-Skid Pad	2
17	Refer to: *"Foot Control"*	Ref
18	Strain Relief Bushing *(622 only)*	1
19	Base Weldment	1
20	Clevis Pin	1
21	E-Ring	2
22	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Models:	***622** (-001 thru -006)*	***623** (-001 thru -006)*	***623** (-009 & -010)*
Serial Numbers:	*V58464 thru V1158421*	*V58464 thru V1158421*	*V58464 thru V1158421*

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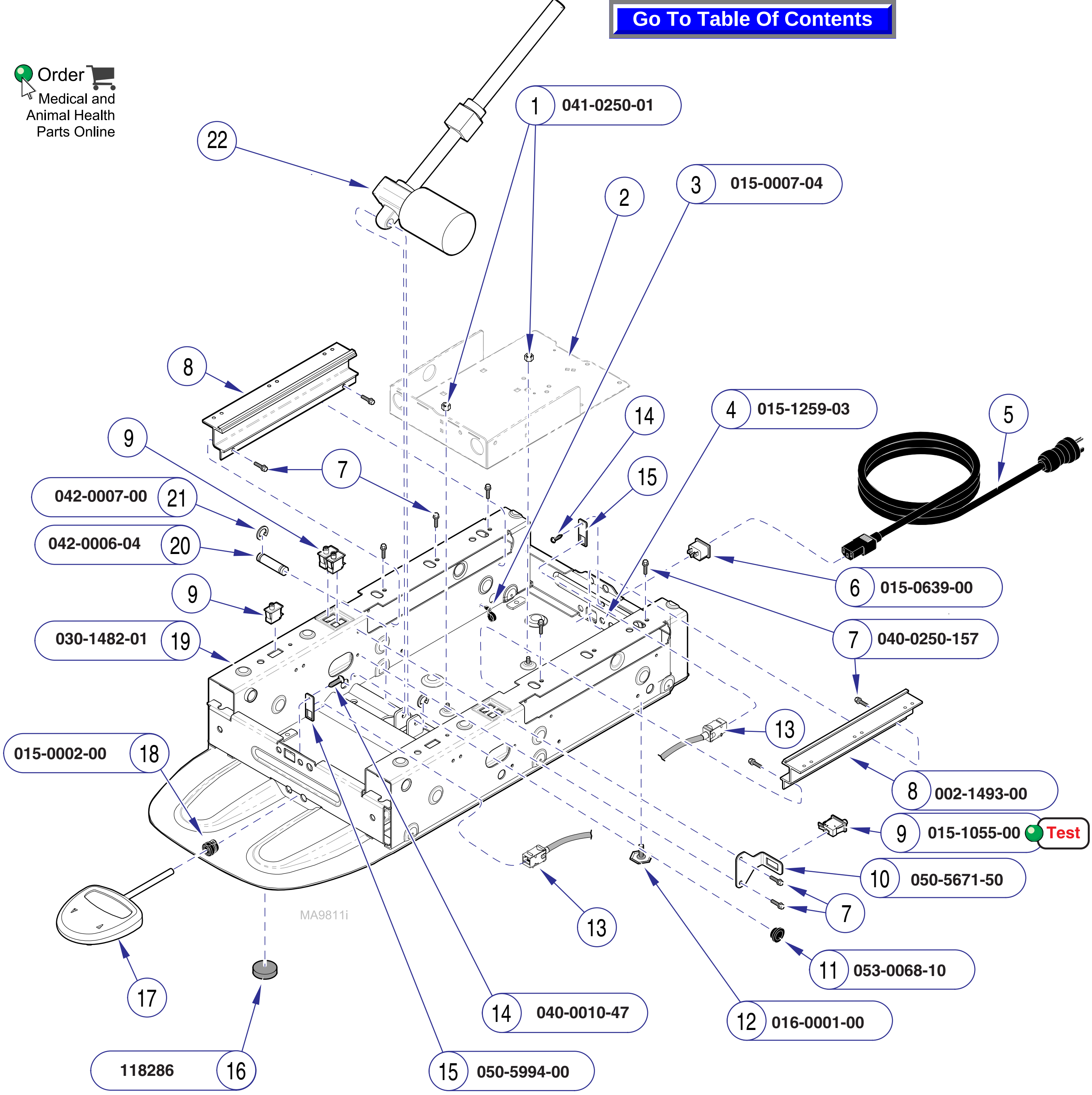
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Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Fuseholder *(622 & 623-003/-004)*	2
5	Refer to: *"Power Cords"*	Ref
6	IEC Inlet	1
7	Screw	12
8	Kit, Scissor Rollers	1
9	Limit Switch	4
10	Limit Switch Bracket	1
11	Snap Bushing	1
12	Leveling Screw	2
13	Foot Control Inlet Harness Ref: *Wiring Diagrams for PN*	Ref
14	Screw *(622)* Screw *(623)*	1 2
15	Modular Plug Adapter Plate *(622)* Modular Plug Adapter Plate *(623)*	1 2
16	Non-Skid Pad	2
17	Refer to: *"Foot Control"*	Ref
18	Strain Relief Bushing *(622 only)*	1
19	Base Weldment	1
20	Clevis Pin	1
21	E-Ring	2
22	Refer to: *"Base Actuator"*	Ref

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Midmark Base Components

Models: *Serial Numbers:*	***622*** *(-001 thru -006)* *V1158422 thru V1182653*	***623*** *(-001 thru -006)* *V1158422 thru V1182653*	***623*** *(-009 & -010)* *V1158422 thru V1182653*

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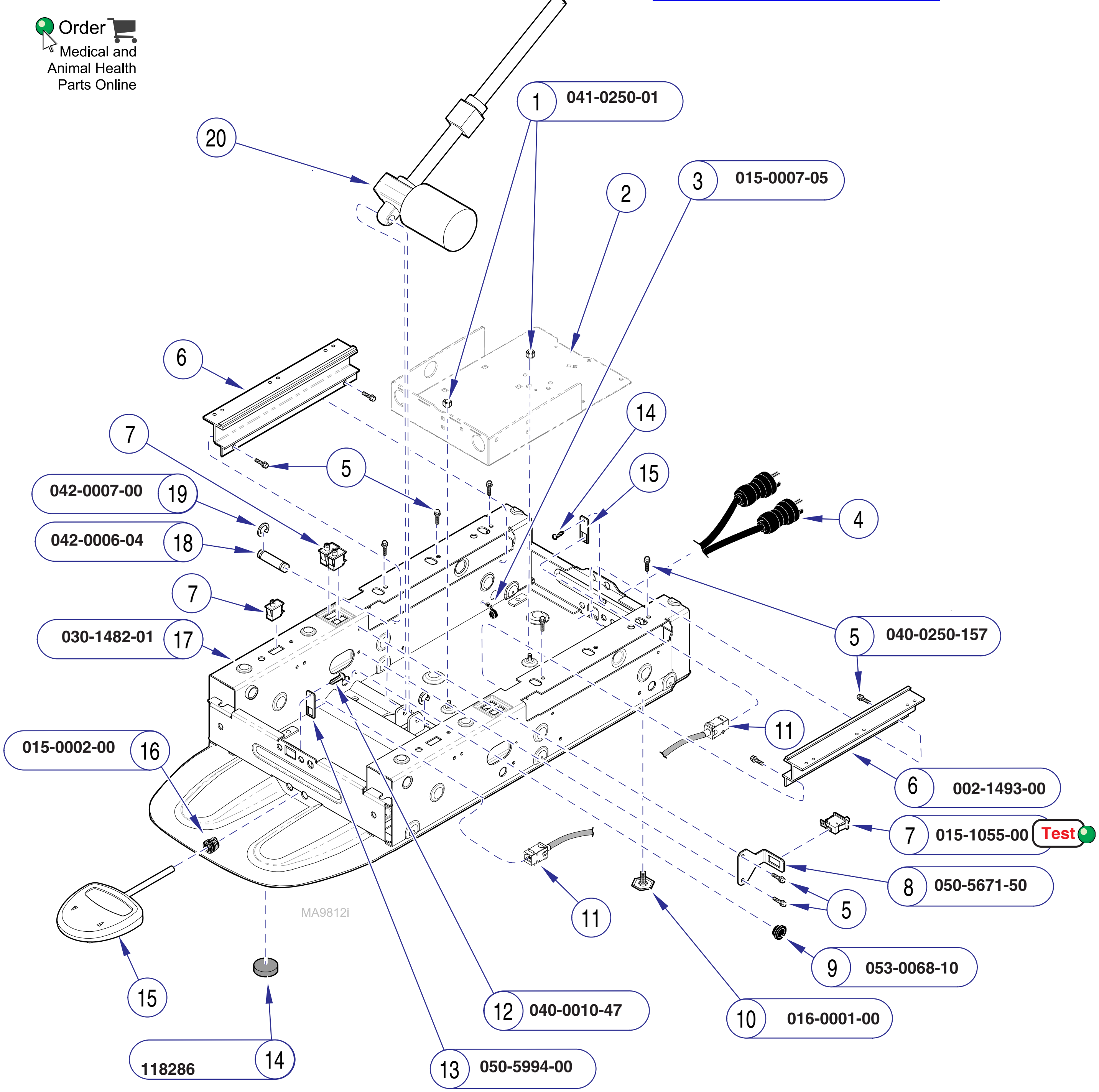
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118286 14
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Item	Description	Qty.
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2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	Ref
5	Screw	12
6	Kit, Scissor Rollers	1
7	Limit Switch	4
8	Limit Switch Bracket	1
9	Snap Bushing	1
10	Leveling Screw	2
11	Foot Control Inlet Harness *(622 & 623)*	
	Ref: *Wiring Diagrams for PN*	Ref
12	Screw *(622)*	1
	Screw *(623)*	2
13	Modular Plug Adapter Plate *(622)*	1
	Modular Plug Adapter Plate *(623)*	2
14	Non-Skid Pad	2
15	Refer to: *"Foot Control"*	Ref
16	Strain Relief Bushing *(622 only)*	1
17	Base Weldment	1
18	Clevis Pin	1
19	E-Ring	2
20	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Midmark Base Components

Models: *Serial Numbers:*

622 *(-007 & -008)* *V58464 thru V798445*

623 *(-007 & -008)* *V58464 thru V798445*

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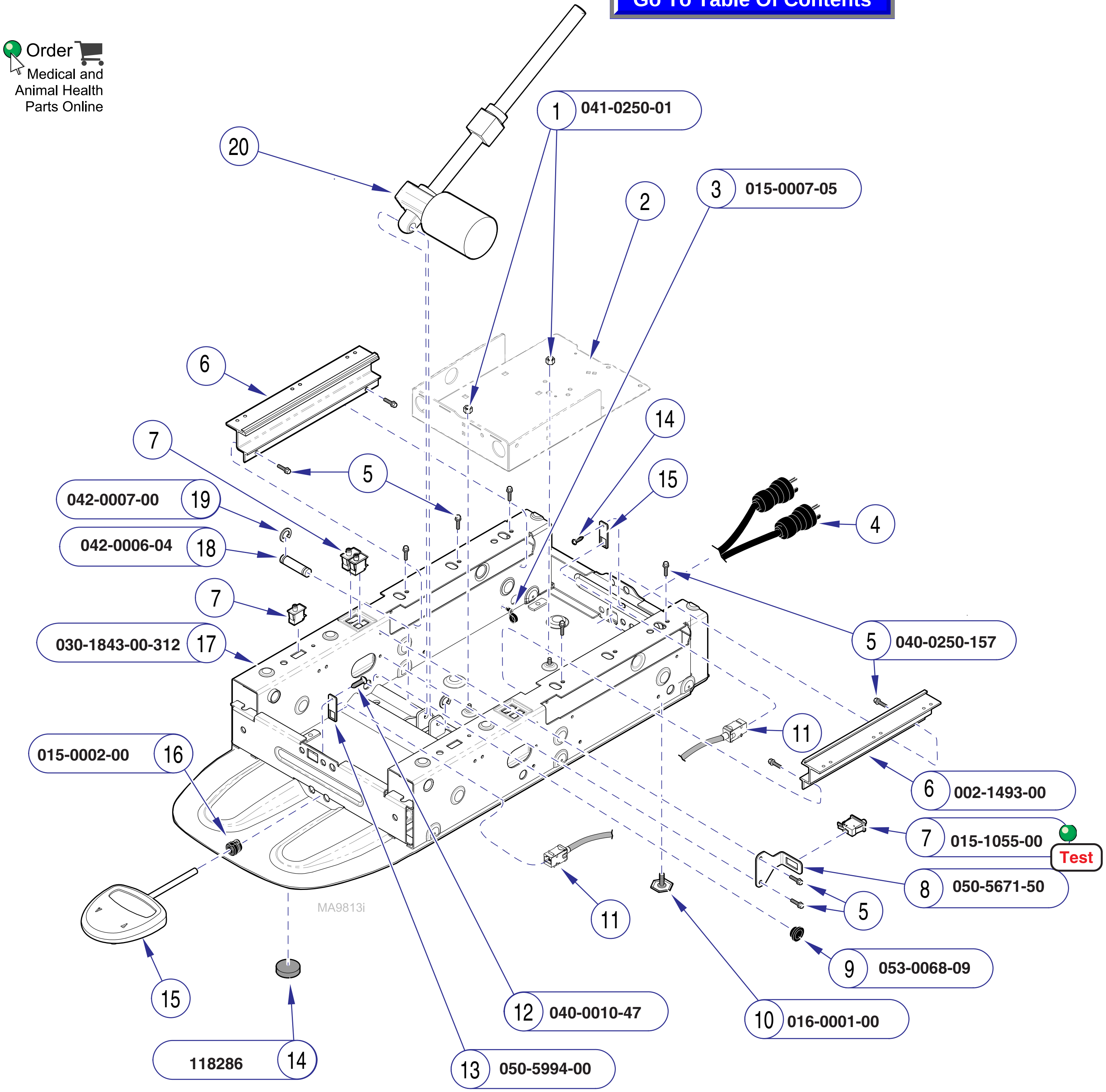
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118286 14
13 050-5994-00

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	Ref
5	Screw	12
6	Kit, Scissor Rollers	1
7	Limit Switch	4
8	Limit Switch Bracket	1
9	Snap Bushing	1
10	Leveling Screw	2
11	Foot Control Inlet Harness	
	Ref: *Wiring Diagrams for PN*	Ref
12	Screw *(622)*	1
	Screw *(623)*	2
13	Modular Plug Adapter Plate *(622)*	1
	Modular Plug Adapter Plate *(623)*	2
14	Non-Skid Pad	2
15	Refer to: *"Foot Control"*	Ref
16	Strain Relief Bushing *(622 only)*	1
17	Base Weldment	1
18	Clevis Pin	1
19	E-Ring	2
20	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Models:	***622** (-007 & -008)*	***623** (-007 & -008)*
Serial Numbers:	*V798446 thru V1158421*	*V798446 thru V1158421*

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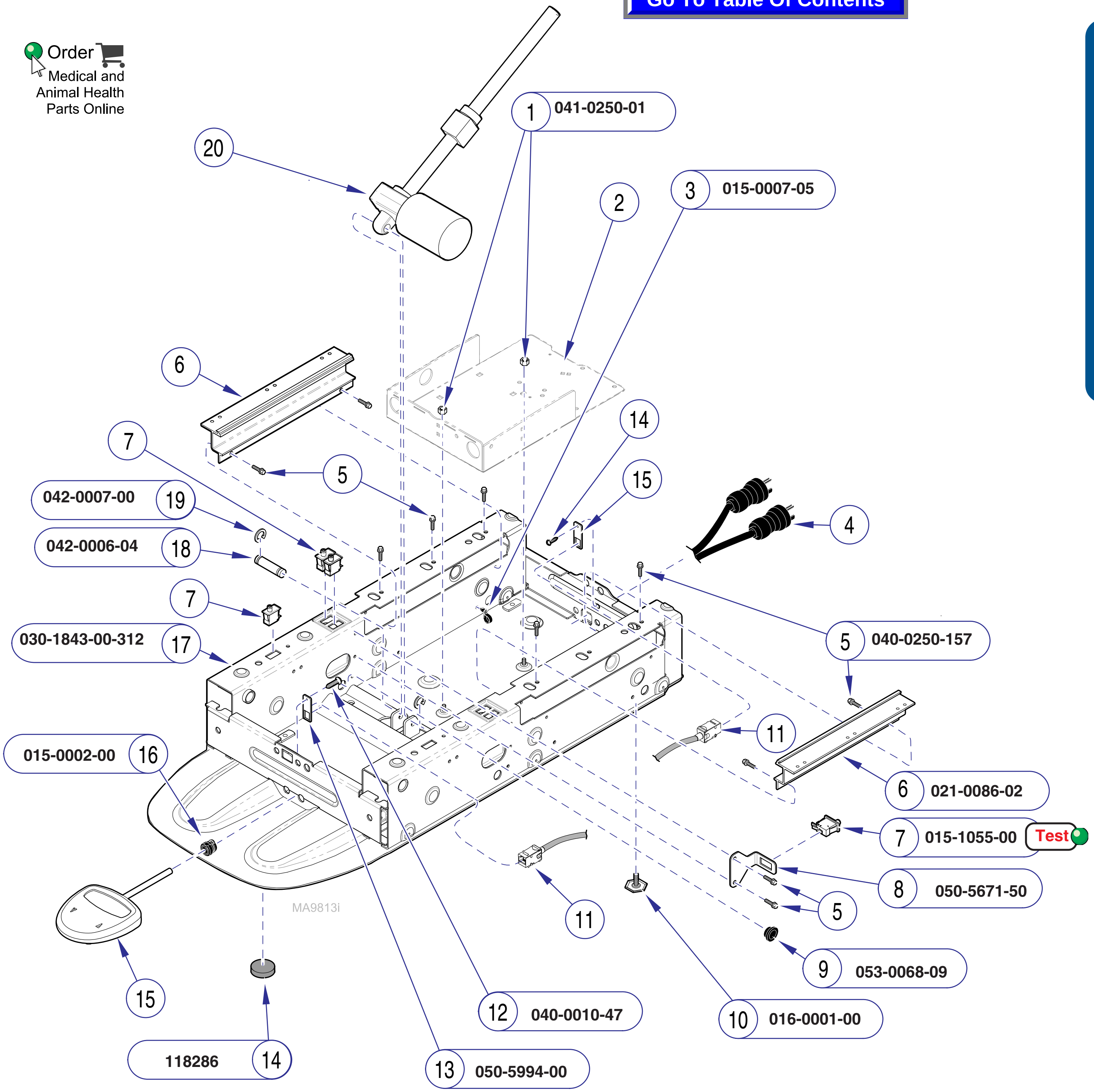

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MA9813i
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10 016-0001-00
118286 14
13 050-5994-00

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	Ref
5	Screw	12
6	Kit, Scissor Rollers	1
7	Limit Switch	4
8	Limit Switch Bracket	1
9	Snap Bushing	1
10	Leveling Screw	2
11	Foot Control Inlet Harness *(622 & 623)*	
	Ref: *Wiring Diagrams for PN*	Ref
12	Screw *(622)*	1
	Screw *(623)*	2
13	Modular Plug Adapter Plate *(622)*	1
	Modular Plug Adapter Plate *(623)*	2
14	Non-Skid Pad	2
15	Refer to: *"Foot Control"*	Ref
16	Strain Relief Bushing *(622 only)*	1
17	Base Weldment	1
18	Clevis Pin	1
19	E-Ring	2
20	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Midmark Base Components

Models:	***622*** *(-007 & -008)*	***623*** *(-007 & -008)*
Serial Numbers:	*V1158422 thru V1182653*	*V1158422 thru V1182653*

Rev. 7/1/15

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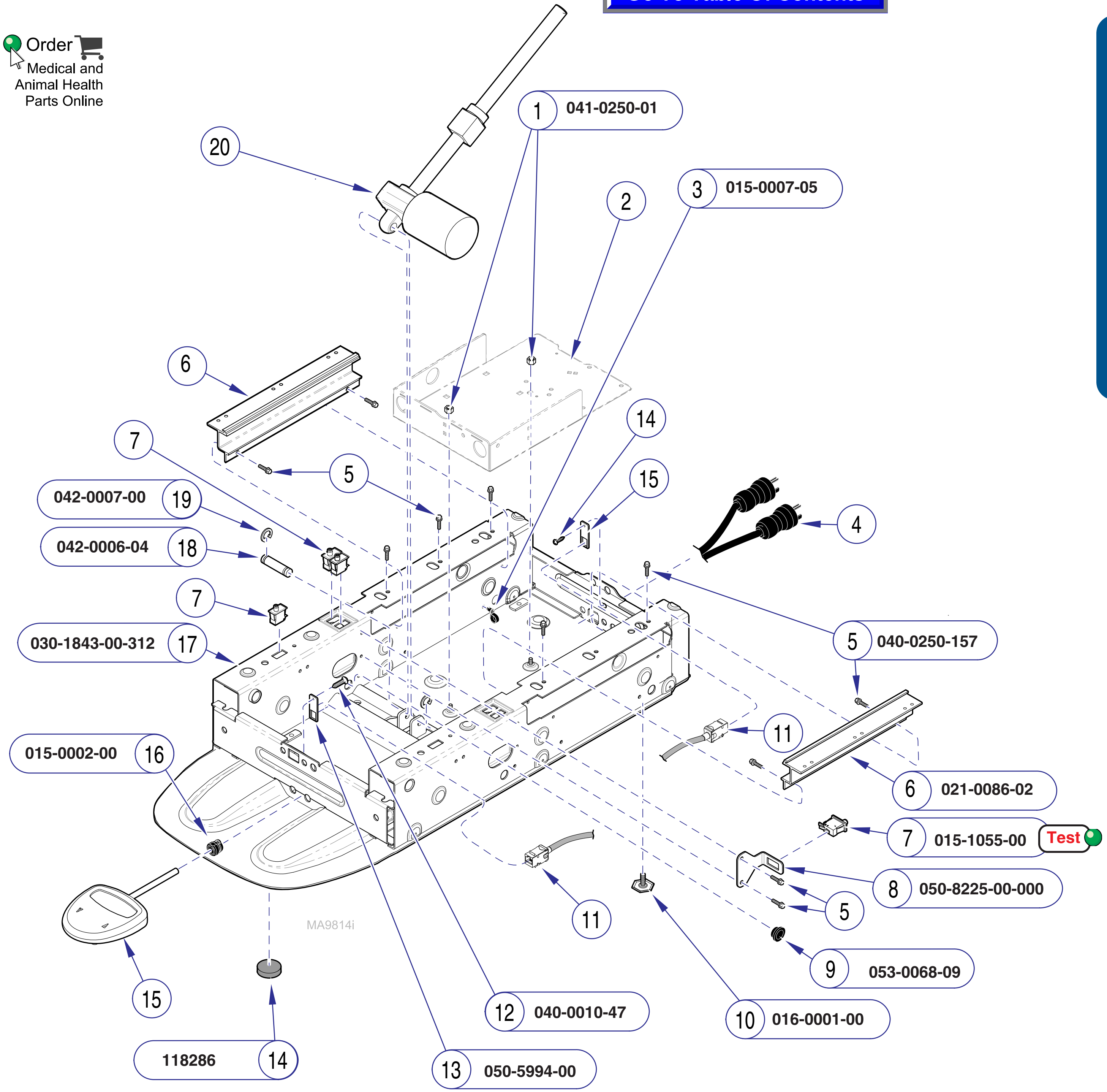

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5 040-0250-157
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6 021-0086-02
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7 015-1055-00
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5
9 053-0068-09
MA9814i
15
12 040-0010-47
10 016-0001-00
118286 14
13 050-5994-00

Refer To: **Go To Page:**

Limit Switch Test B-5
Wiring Diagrams D-1
Foot Control:
222 / 622 .... E-27
623 .... E-29.1
Base Actuator E-22
PC Board Enclosure:
Manual Back models E-23
Power Back models E-24
Power Cords E-39

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Refer to: *"Power Cords"*	Ref
5	Screw	12
6	Kit, Scissor Rollers	1
7	Limit Switch	4
8	Limit Switch Bracket	1
9	Snap Bushing	1
10	Leveling Screw	2
11	Foot Control Inlet Harness *(622 & 623)*	
	Ref: *Wiring Diagrams for PN*	Ref
12	Screw *(622)*	1
	Screw *(623)*	2
13	Modular Plug Adapter Plate *(622)*	1
	Modular Plug Adapter Plate *(623)*	2
14	Non-Skid Pad	2
15	Refer to: *"Foot Control"*	Ref
16	Strain Relief Bushing *(622 only)*	1
17	Base Weldment	1
18	Clevis Pin	1
19	E-Ring	2
20	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Models: ***623** (-008)*
Serial Numbers: *V1182654 thru Present*

Midmark Base Components

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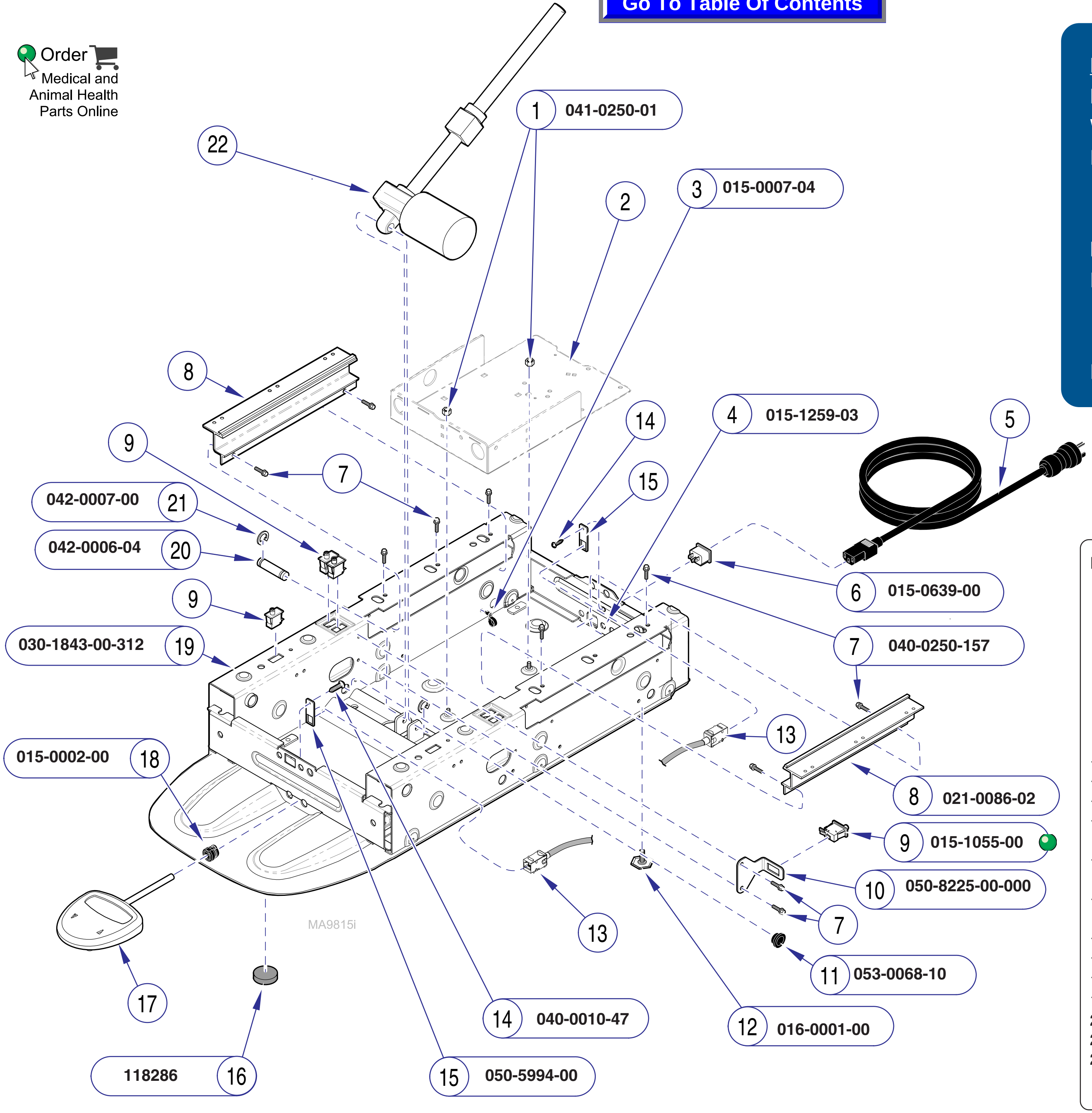
Limit Switch Test B-5
Wiring Diagrams D-1
Foot Control:
222 / 622 .... E-27
623 .... E-29.1
Base Actuator E-22
PC Board Enclosure:
Manual Back models E-23
Power Back models E-24
Power Cords E-39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015-0002-00 18
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10 050-8225-00-000
7
13
MA9815i
17
11 053-0068-10
14 040-0010-47
12 016-0001-00
118286 16
15 050-5994-00

Item	Description	Qty.
1	Nut	2
2	Refer to: *"PC board Enclosure"*	Ref
3	Wrap-N-Tap Wire Clamp	3
4	Fuseholder *(622 & 623-003/-004)*	2
5	Refer to: *"Power Cords"*	Ref
6	IEC Inlet	1
7	Screw	12
8	Kit, Scissor Rollers	1
9	Limit Switch	4
10	Limit Switch Bracket	1
11	Snap Bushing	1
12	Leveling Screw	2
13	Foot Control Inlet Harness *(622 & 623)* Ref: *Wiring Diagrams for PN*	Ref
14	Screw *(622)*	1
	Screw *(623)*	2
15	Modular Plug Adapter Plate *(622)*	1
	Modular Plug Adapter Plate *(623)*	2
16	Non-Skid Pad	2
17	Refer to: *"Foot Control"*	Ref
18	Strain Relief Bushing *(622 only)*	1
19	Base Weldment	1
20	Clevis Pin	1
21	E-Ring	2
22	Refer to: *"Base Actuator"*	Ref

Always Specify Model & Serial Number

Models: ***623** **(-009 thru -011)***
Serial Numbers: *V1182654 thru Present*

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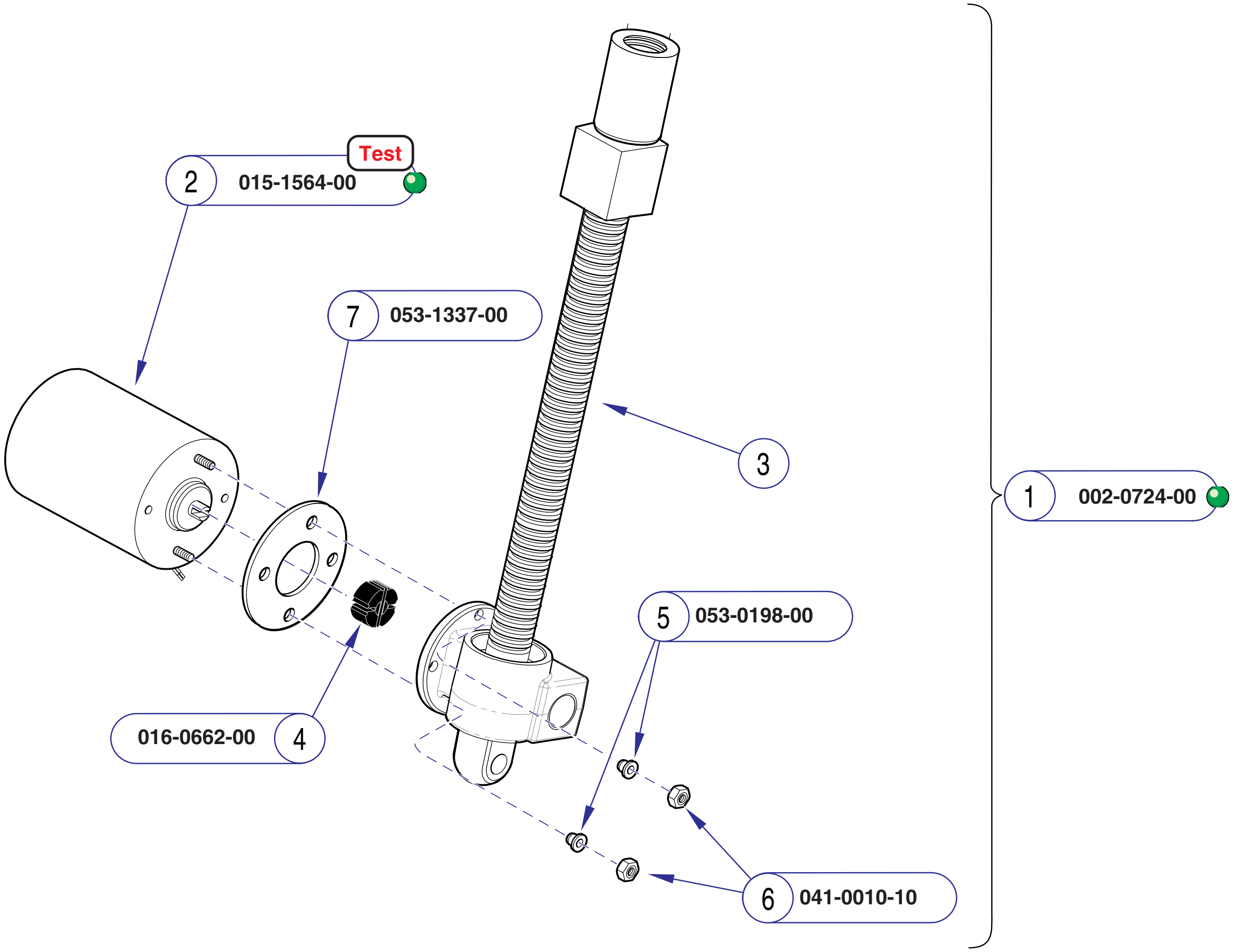
Actuator Test B-12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Test
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3
1 002-0724-00
5 053-0198-00
016-0662-00 4
6 041-0010-10
MA610900i

Item	Description	Qty.
1	Actuator Assembly Kit *(includes items 2 thru 6)*	1
2	• Motor	1
3	• Ball Screw Asm. *(not available separately)*	1
4	• Coupler	1
5	• Shoulder Washer	2
6	• Nut	2
7	• Isolator	1

Always Specify Model & Serial Number

Models: **All**
Serial Numbers: *All*

Base Actuator

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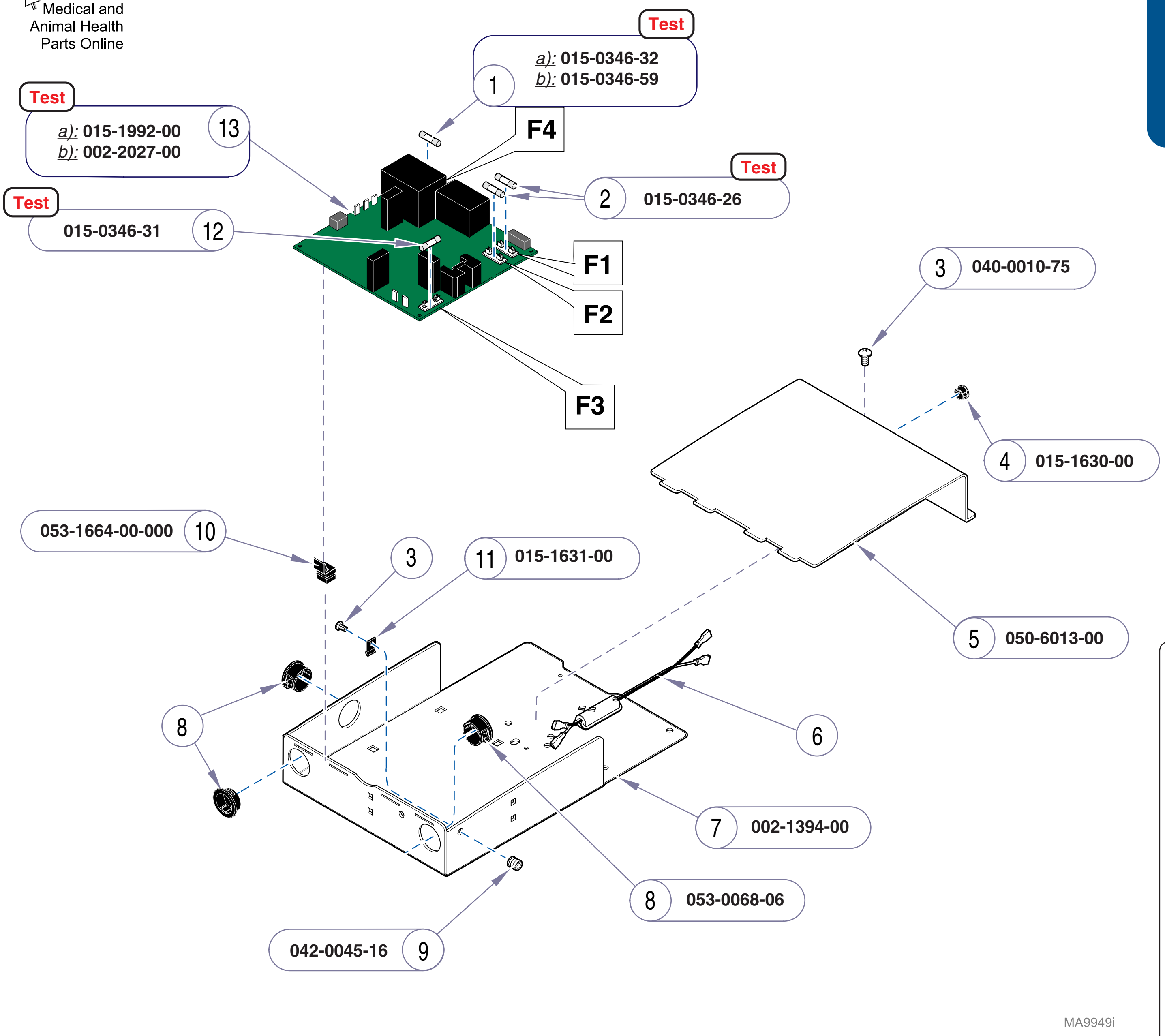
Refer To: **Go To Page:**
Fuse Test B-3
Main PC Board Test B-21
Section D - Wiring Diagrams D-1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Test
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Test
2
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Test
12
015-0346-31
F1
F2
F3
3
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4
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11
015-1631-00
5
050-6013-00
8
6
7
002-1394-00
8
053-0068-06
9
042-0045-16
MA9949i

Item	Description	Qty.
1	*a)* Slo-blo Fuse *(.18 A, 250v, .25" x 1.25")*	1
	b) Slo-blo Fuse (Export) *(.30 A, 250v, .25" x 1.25")*	1
2	Slo-blo Fuse *(10 amp, 250v, .25" x 1.25")* .	2
3	Screw *(10-24 x 3/8")*	2
4	Split Grommet *(older models only)*	1
5	Cover	1
6	Refer to: *Section D - Wiring Diagrams*	Ref
7	Control Panel Housing Kit	1
8	Bushing	3
9	Nutsert	2
10	PC Board Standoff	7
11	Cable Clamp	1
12	Slo-blo Fuse *(5 amp, 250v, .25" x 1.25")* ...	1
13	*a)* PC Board *(1 function)*	1
	b) PC Board *(1 function)* (Export)	1
	(export PC Board includes item #10)	

Always Specify Model & Serial Number

PC Board Enclosure
(Manual Back Models)

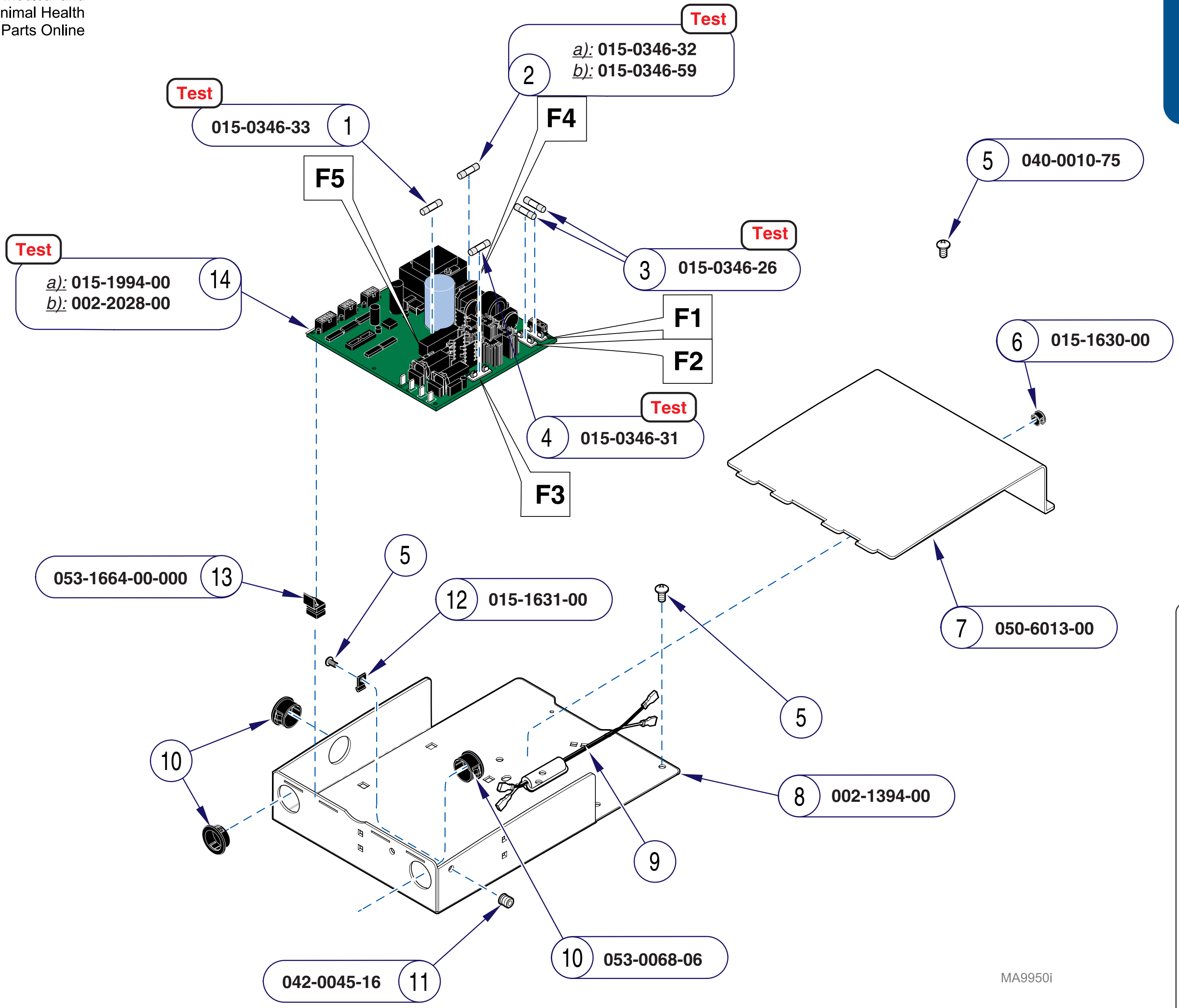
Models: Serial Numbers:	***222*** *(all)* *All*	***622*** *(all)* *All*

Rev.6/10/16

Order Medical and Animal Health Parts Online

Refer To: **Go To Page:**

Fuse Test	B-3
Main PC Board Test	B-21
Section D - Wiring Diagrams	D-1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F4
Test
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1
F5
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Test
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015-0346-26
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b): 002-2028-00
14
F1
F2
6
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F3
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5
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7
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5
10
8
002-1394-00
9
10
053-0068-06
042-0045-16
11
MA9950i

Item	Description	Qty.
1	Slo-blo Fuse *(4 amp, 250v, .25" x 1.25")*	1
2	*a)* Slo-blo Fuse *(.18 A, 250v, .25" x 1.25")*	1
	b) Slo-blo Fuse (Export) *(.30 A, 250v, .25" x 1.25")*	1
3	Slo-blo Fuse *(10 amp, 250v, .25" x 1.25")*	2
4	Slo-blo Fuse *(5 amp, 250v, .25" x 1.25")*	1
5	Screw *(10-24 x .37")*	5
6	Split Grommet *(older models only)*	1
7	Cover *(item 6 - not required)*	1
8	Control Panel Housing Kit	1
9	Refer to: *Section D - Wiring Diagrams*	Ref
10	Bushing	3
11	Nutsert	2
12	Cable Clamp	1
13	PC Board Standoff	7
14	*a)* PC Board *(2 function)*	1
	b) PC Board *(2 function)* (Export) *(export PC Board includes item #13)*	1

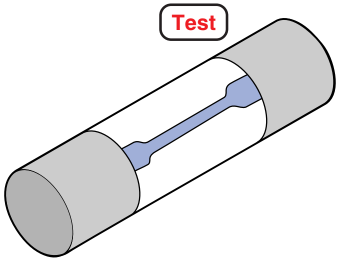
Always Specify Model & Serial Number

Models:	***223** (all)*	***623** (all)*
Serial Numbers:	*All*	*All*

PC Board Enclosure
(Power Back Models)

Refer To: **Go To Page:**
Fuse Test B-3
Section D - Wiring Diagrams D-1

Test



MA637700i

Fuse:	**Location:** ***(See next page)***	**Functions affected:**	**Rating:**	**Midmark Part Number:**
Primary Fuses (2)	Main PC Board [F1 & F2]	All	10A, 250V, Slo-Blo, 1/4 x 1-1/4 in.	015-0346-26
Base Motor Fuse	Main PC Board [F3]	Base Up / Base Down	5A, 250V, Slo-Blo, 1/4 x 1-1/4 in.	015-0346-31
Transformer Fuse	Main PC Board [F4]	All	187mA, 250V, Slo-Blo, 1/4 x 1-1/4 in.	015-0346-32
Transformer Fuse *(230 Volt)*	Main PC Board [F4]	All	300mA, 250V, Slo-Blo, 1/4 x 1-1/4 in.	015-0346-59
Back Motor Fuse ***(223 / 623 only)***	Main PC Board [F5]	Back Up / Back Down	4A, 250V, Slo-Blo, 1/4 x 1-1/4 in.	015-0346-33
Drawer Heater Fuses (2) ***(optional)***	Distribution Board	Drawer Heater	800mA, 250V, Slo-Blo, 5 x 20 mm	015-0346-25
Upholstery Heater Fuses (2) ***(optional)***	Upholstery PC Board	Upholstery Heater	1/2 A, 250V, Slo-Blo, 1/4 x 1-1/4 in.	015-0346-05
230 Volt Transformer Fuses (2) ***222 (-009, -010) / 223 (-009, -010)*** ***622 (-003, -004) / 623 (-003, -004)***	IEC Inlet	All	4A, 250V, Slo-Blo, 5 x 20 mm Interrupt Rating 40A @ 250V	015-0346-01
230 Volt Transformer Fuses (2) ***222 (-017) / 623 (-009, -010, -011)***	IEC Inlet	All	4A, 250V, Slo-Blo, 5 x 20 mm High Breaking Capacity	015-0346-51
Isolation Transformer Fuses (2) ***(Canadian models only)***	IEC Inlet	All	6.3 A, 250V, Slo-Blo, 5 x 20 mm	015-0346-20

Always Specify Model & Serial Number

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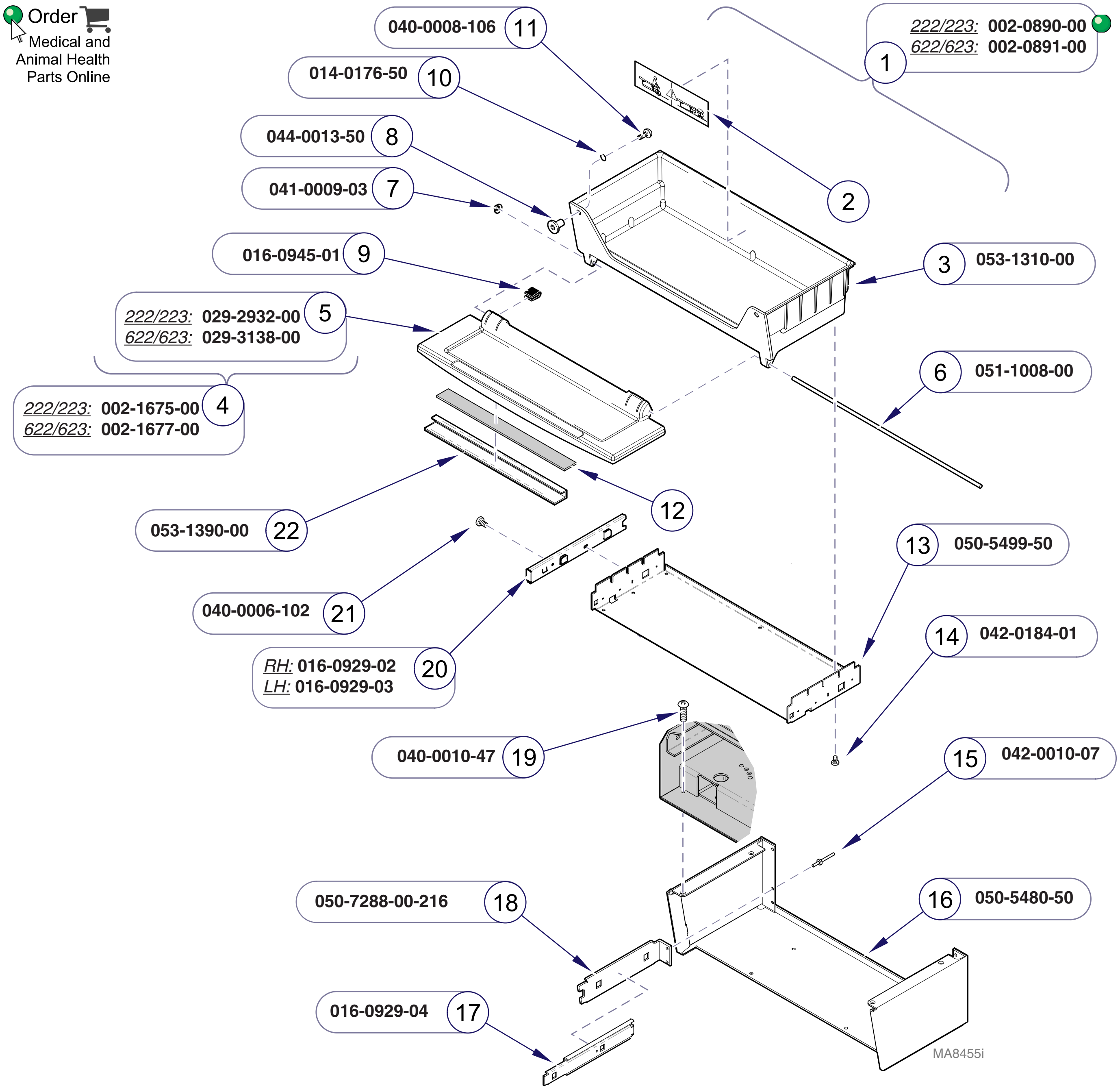
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622/623: 002-1677-00 4
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622/623: 002-0891-00 1
2
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6 051-1008-00
12
13 050-5499-50
14 042-0184-01
15 042-0010-07
16 050-5480-50
MA8455i

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Refer To:

Upholstery - Midmark:

Premium E-8*

Ultra Premium E-9*

Label Location E-38

** multiple pages due to model / serial # break*

Item	Description	Qty.
1	Exam Assistant® Drawer Assembly *(includes items 2 thru 11)*	1
2	• Refer to: *"Label Location"*	Ref
3	• Drawer	1
4	• Drawer Front & Hardware Kit *(includes items 5 thru 8)*	*1*
5	•• Drawer Front Assembly	1
6	•• Pivot Rod	1
7	•• Push Nut	2
8	• Nut	2
9	• Edge Trim	2
10	• O-ring *(early models only - not required)*	2
11	• Screw *(#8 x 32 x 1/4")*	2
12	Color Insert - *622/623 only* Refer to: *Upholstery - Midmark*	Ref
13	Drawer Heat Sink	1
14	Screw *(M4-1.79 x 12mm)*	5
15	Pop Rivet	4
16	Drawer Housing	1
17	Outer and Middle Slide Assy.	2
18	Drawer Slide Bracket	2
19	Screw	4
20	Inner Slide *(RH shown)* *Item #21 used only on models w/drawer htr.*	2
21	Screw *(#6-32 x 3/16" Phillips)*	1
22	Clear Drawer Pull - *622/623 only*	1

Always Specify Model & Serial Number

Models:	***222*** *(all)*	***223*** *(all)*	***622*** *(all)*	***623*** *(all)*
Serial Numbers:	*V2200 thru V1308218*	*V2200 thru V1308233*	*V2200 Thru Present*	*V2200 thru V1321171*

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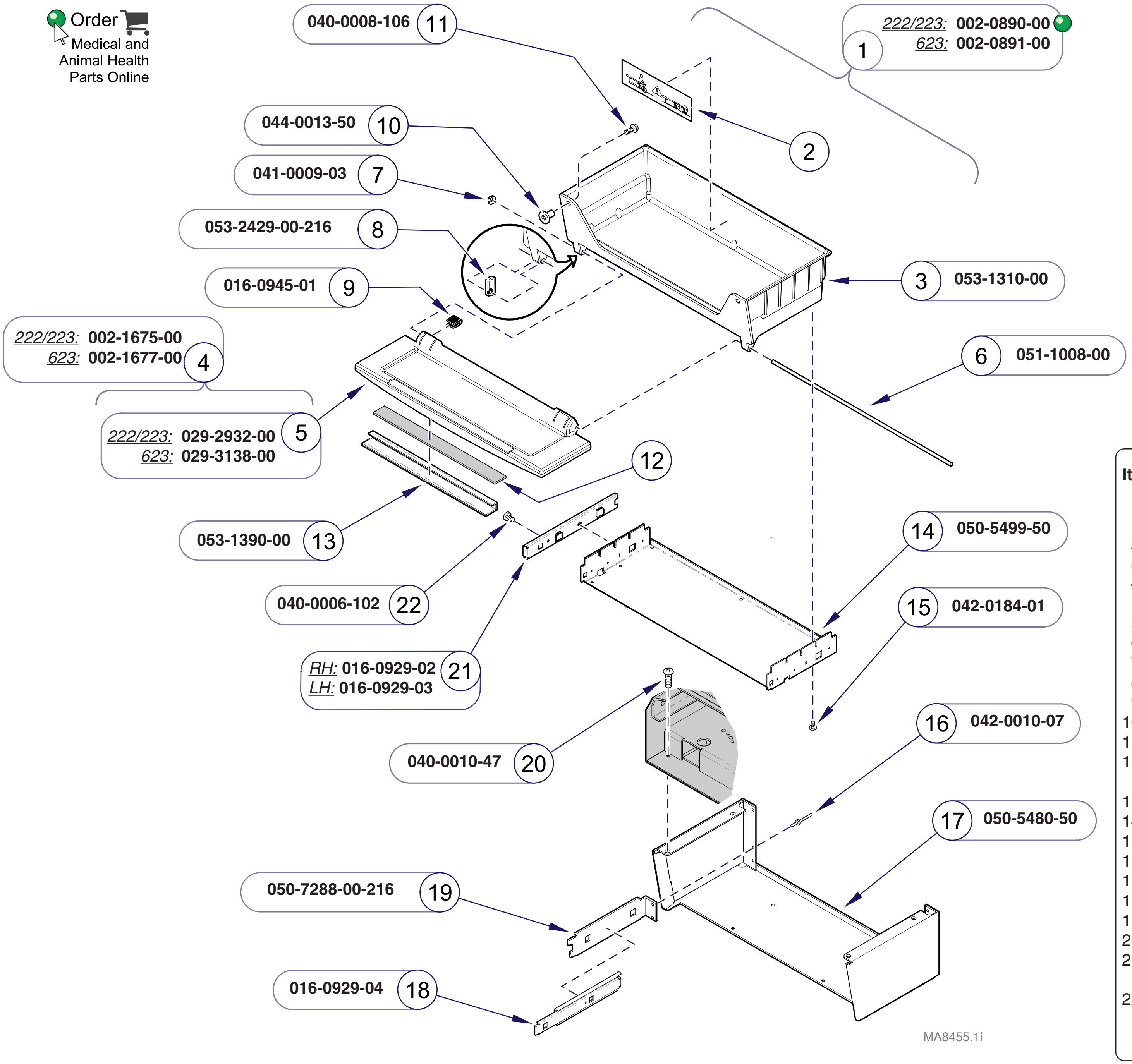
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016-0945-01 9
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623: 002-1677-00 4
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222/223: 029-2932-00
623: 029-3138-00 5
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053-1390-00 13
14 050-5499-50
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LH: 016-0929-03 21
16 042-0010-07
040-0010-47 20
17 050-5480-50
050-7288-00-216 19
016-0929-04 18
MA8455.1i

Item	Description	Qty.
1	Exam Assistant® Drawer Assembly *(includes items 2 thru 11)*	1
2	• Refer to: *"Label Location"*	Ref
3	• Drawer	1
4	• Drawer Front & Hardware Kit *(includes items 5 thru 8)*	1
5	•• Drawer Front Assembly	1
6	•• Pivot Rod	1
7	•• Push Nut	2
8	•• Fold Down Drawer Stop	2
9	• Edge Trim	2
10	• Nut	2
11	• Screw *(#8 x 32 x 1/4")*	2
12	Color Insert - *622/623 only* Refer to: *Upholstery - Midmark*	Ref
13	Clear Drawer Pull - *622/623 only*	1
14	Drawer Heat Sink	1
15	Screw *(M4-1.79 x 12mm)*	5
16	Pop Rivet	4
17	Drawer Housing	1
18	Inner Slide *(RH shown)*	2
19	Drawer Slide Bracket	2
20	Screw	4
21	Outer and Middle Slide Assy.	2
	Item #22 used only on models w/drawer htr.	
22	Screw *(#6-32 x 3/16" Phillips)*	1

Always Specify Model & Serial Number

**Exam Assistant®
Drawer Assembly**

Models: Serial Numbers:	**222** (all) V1308219 thru Present	**223** (all) V1308234 thru Present	**623** (all) V1321172 Thru Present

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Foot Switch Test - *222/622* B-6

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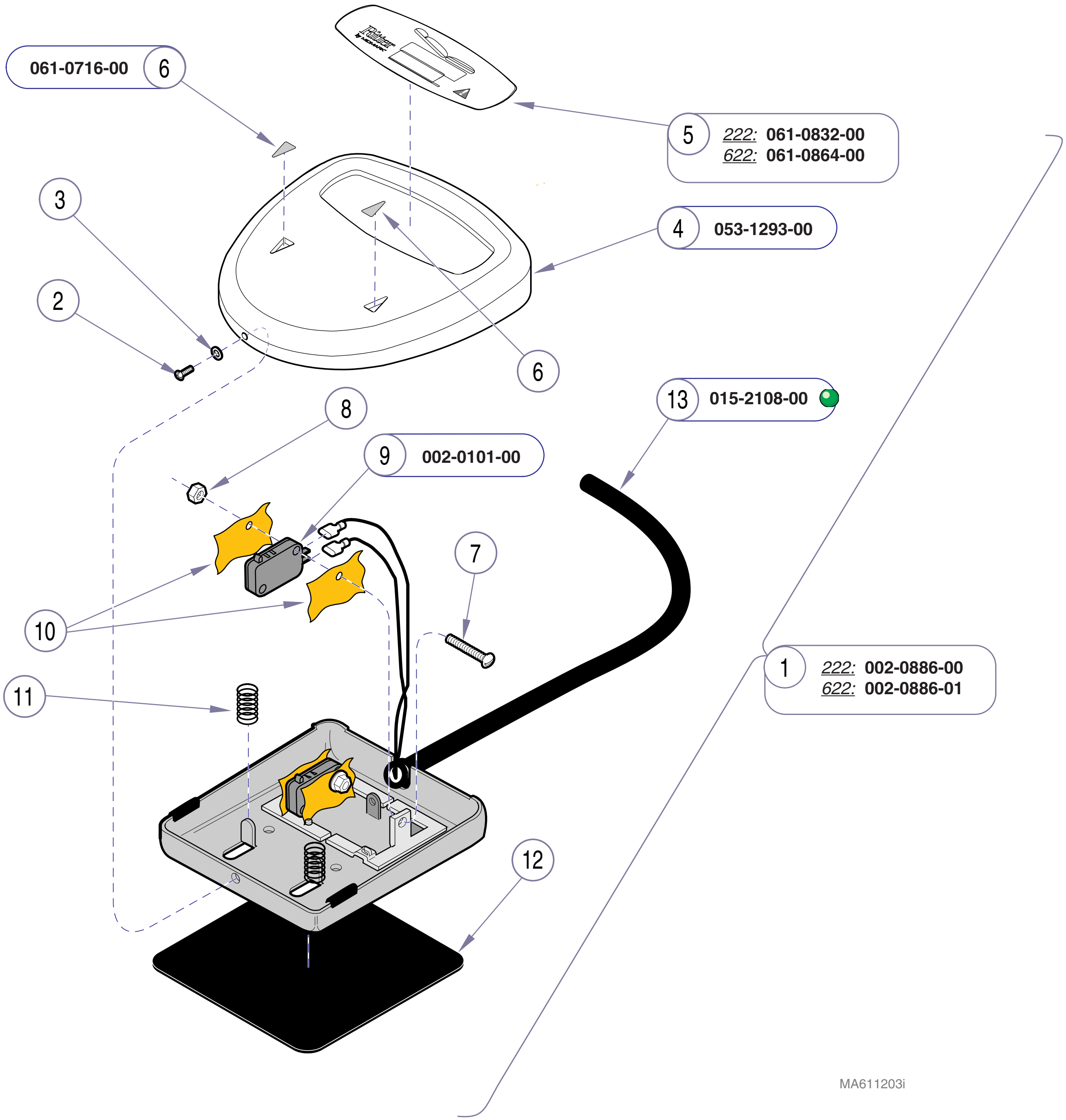
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8
9 002-0101-00
7
10
1 222: 002-0886-00
622: 002-0886-01
11
12
MA611203i

Item	Description	Qty.
1	Single Function Foot Control *(incl. items 2 thru 13)*	*1*
2	• Screw *(not available)*	1
3	• Washer *(not available)*	1
4	• Footswitch Cover	1
5	• Label	1
6	• Up / Down Arrow	2
7	• Screw *(not available)*	2
8	• Nut *(not available)*	2
9	• Foot Control Switch	2
10	• Insulator *(not available)*	2
11	• Spring *(not available)*	2
12	• Rubber Pad *(not available)*	1
13	• Cable	1

Always Specify Model & Serial Number

Foot Control
(222 / 622)

Models: *Serial Numbers:*	***222** (all)* *All*	***622** (all)* *All*

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Refer To:
Foot Control Test - *223/623* B-7

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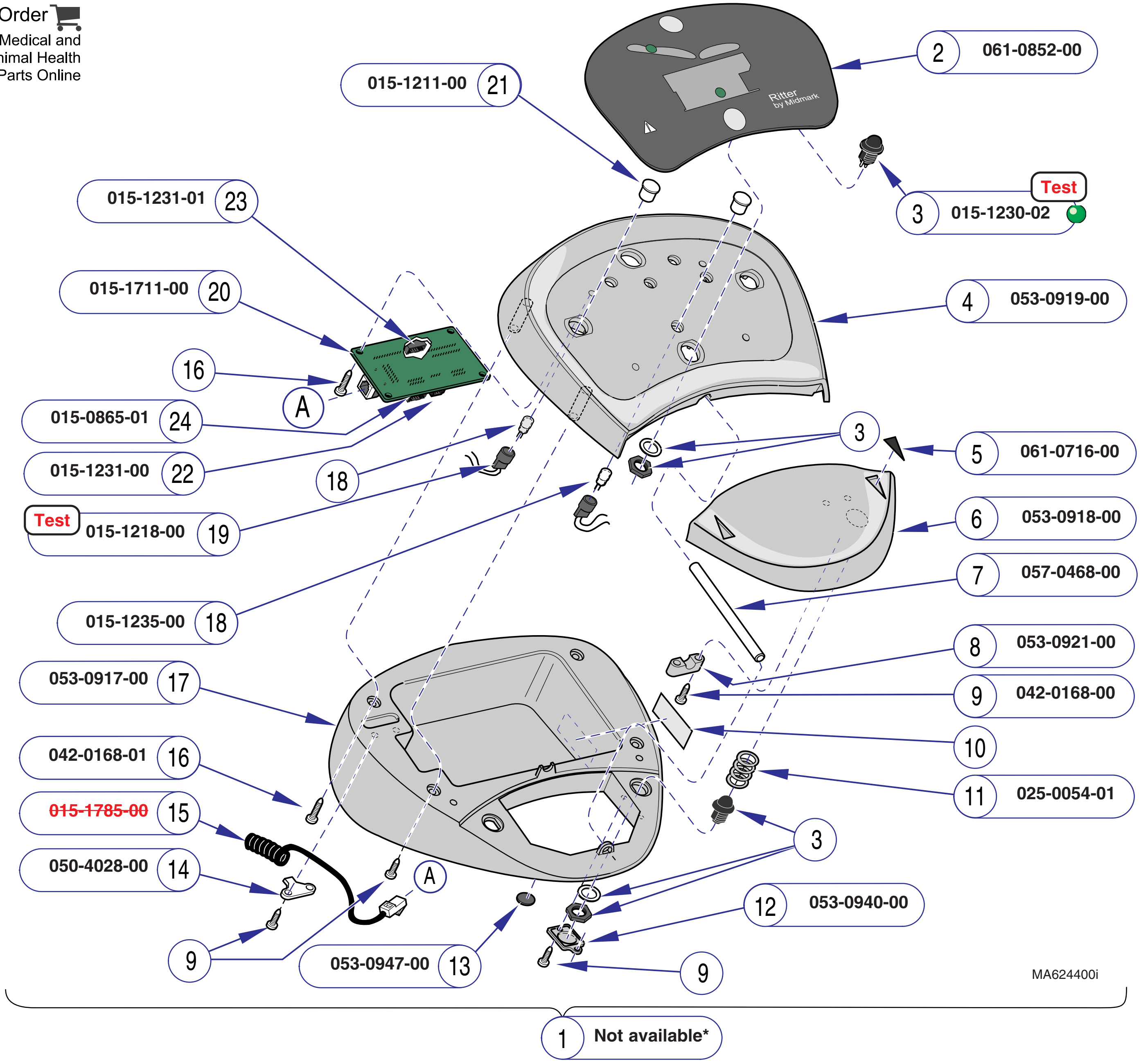
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3
14 050-4028-00
A
12 053-0940-00
9
13 053-0947-00
9
MA624400i
1 Not available*

Item	Description	Qty.
1	Two Function Foot Control *(includes items 2 thru 24)*	1
2	• Footswitch Label	1
3	• Switch Assembly *(7" leads)*	4
4	• Foot Control Top	1
5	• Up/Down Labels	2
6	• Foot Control Pedal	1
7	• Pivot Shaft	1
8	• Pedal Cap	2
9	• Screw *(metric K 3.5-1.57 x 10mm)*	12
10	• Serial Number Label *(not available)*	1
11	• Spring	2
12	• Switch Cover	2
13	• Stem Bumper	8
14	• Strain Relief	1
15	• Retractable Cord	1
16	• Screw *(metric K 3.5-1.57 x 16mm)*	6
17	• Foot Control Base	1
18	• Green LED *(w/ leads)*	2
19	• Connector Assembly	2
20	• Two Function Control Board	1
21	• Clear Lens	2
22	• Modular Connector	1
23	• Receptacle Housing *(4 position)*	2
24	• Receptacle Housing *(6 position)*	2

Always Specify Model & Serial Number

This style foot control is no longer available. Subsequent version(s) are compatible. Refer to following page(s).

Models: ***223** (-001 thru -014)*
Serial Numbers:
SC1000 thru present
SE1000 thru present
V2200 thru V3302
SD1000 thru present
SF1000 thru present

Foot Control
(223)

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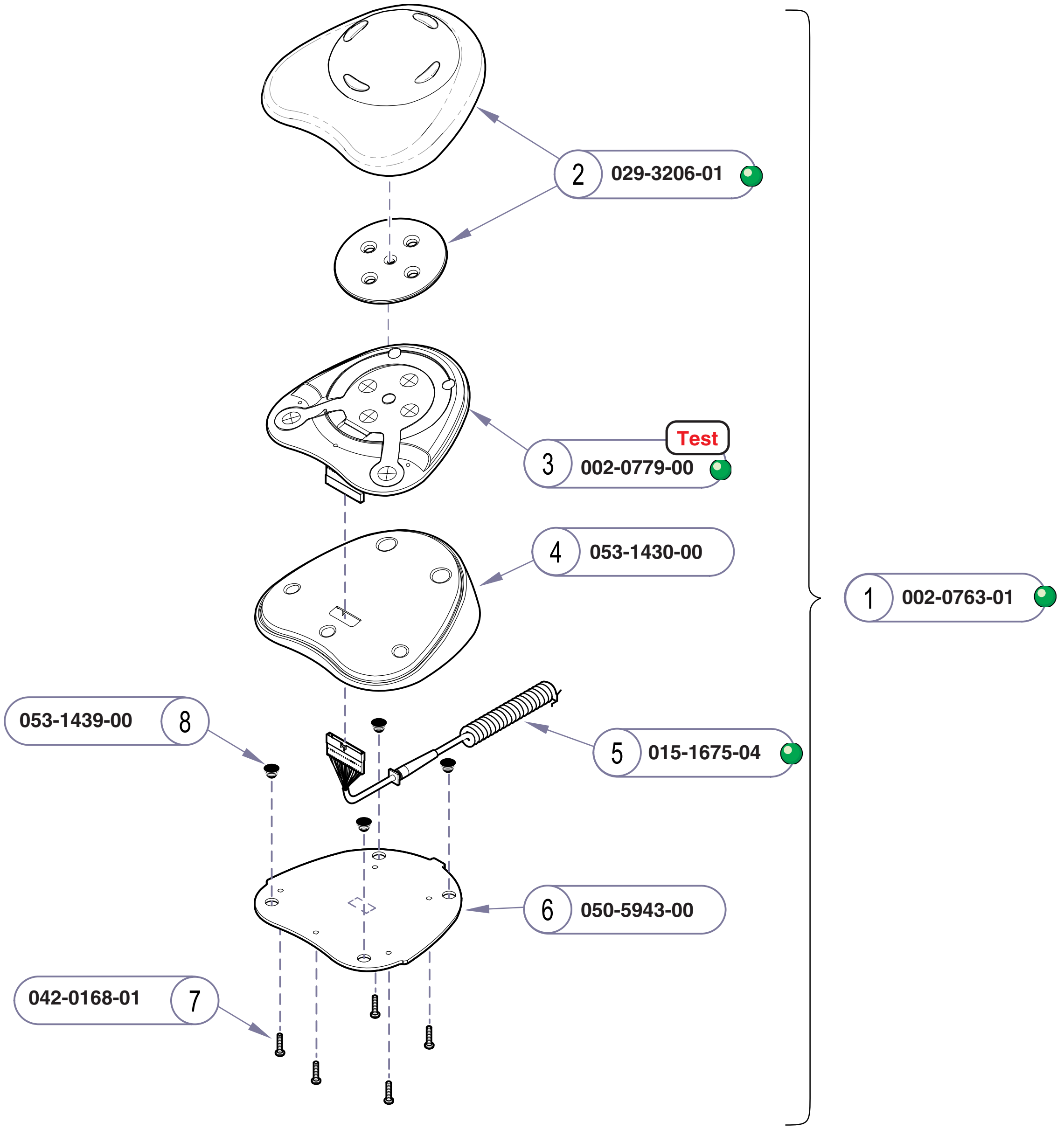
Foot Control Test - *223/623* B-7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002-0763-01
053-1439-00
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5
015-1675-04
6
050-5943-00
042-0168-01
7

MA659300i

Item	Description	Qty.
1	Two Function Foot Control *(incl. items 2 thru 8)*	1
2	• Keypad	1
3	• Switch Membrane Assembly	1
4	• Base	1
5	• Cord	1
6	• Base Plate	1
7	• Screw	5
8	• Stem Bumper	4

Always Specify Model & Serial Number

Foot Control
(223)

Models: ***223** (all)*
Serial Numbers: *V3303 thru present*

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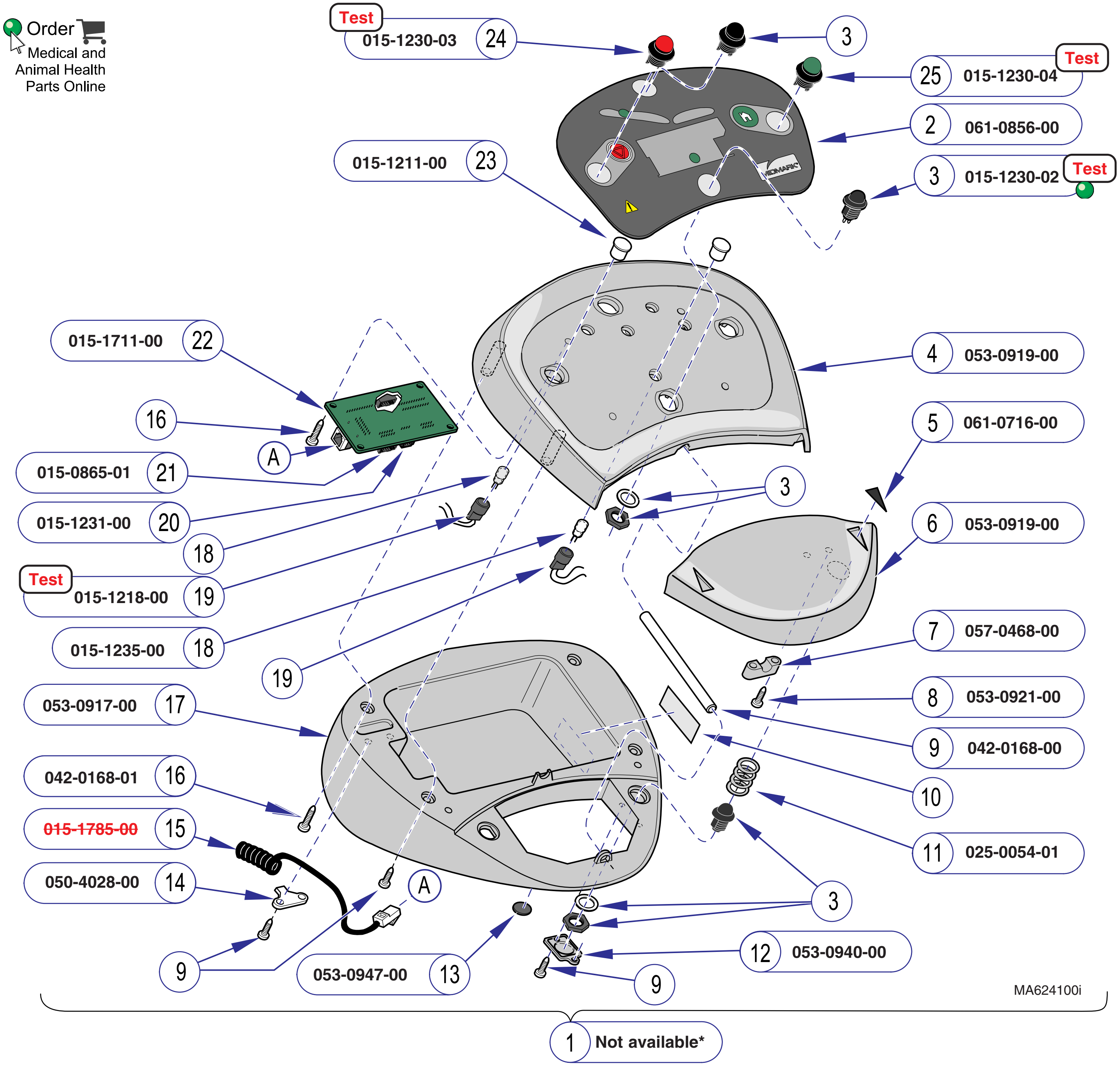
Refer To: **Go To Page:**
Foot Control Test - *223/623* B-7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015-1230-02
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MIDMARK
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9
MA624100i
1
Not available*

This style foot control is no longer available. Subsequent version(s) are compatible. Refer to following page(s).

Item	Description	Qty.
1	Two Function Foot Control .... *(includes items 2 thru 25)*	1
2	• Footswitch Label	1
3	• Switch Assembly *(7" leads)* .... *(Black cap: 015-1205-03)*	4
4	• Foot Control Top	1
5	• Up/Down Labels	2
6	• Foot Control Pedal	1
7	• Pivot Shaft	1
8	• Pedal Cap	2
9	• Screw *(metric 3.5 x 10mm)*	12
10	• Serial Number Label *(not available)*	1
11	• Spring	2
12	• Switch Cover	2
13	• Stem Bumper	8
14	• Strain Relief	1
15	• Retractable Cord	1
16	• Screw *(metric 3.5 x 16mm)*	6
17	• Foot Control Base	1
18	• Green LED *(w/ leads)*	2
19	• Connector Assembly	2
20	• Receptacle Housing *(4 position)*	2
21	• Receptacle Housing *(6 position)*	2
22	• Two Function Control Board	1
23	• Clear Lens	2
24	• Switch Assmbly *(5" leads)* .... *(Red cap: 015-1205-04)*	1
25	• Switch Assmbly *(5" leads)* .... *(Green cap: 015-1205-05)*	1

Always Specify Model & Serial Number

Models: ***623 (-001 thru -006)***
Serial Numbers: *SL1000 thru present* *SM1000 thru present*
V2200 thru V3302

Foot Control
(623)

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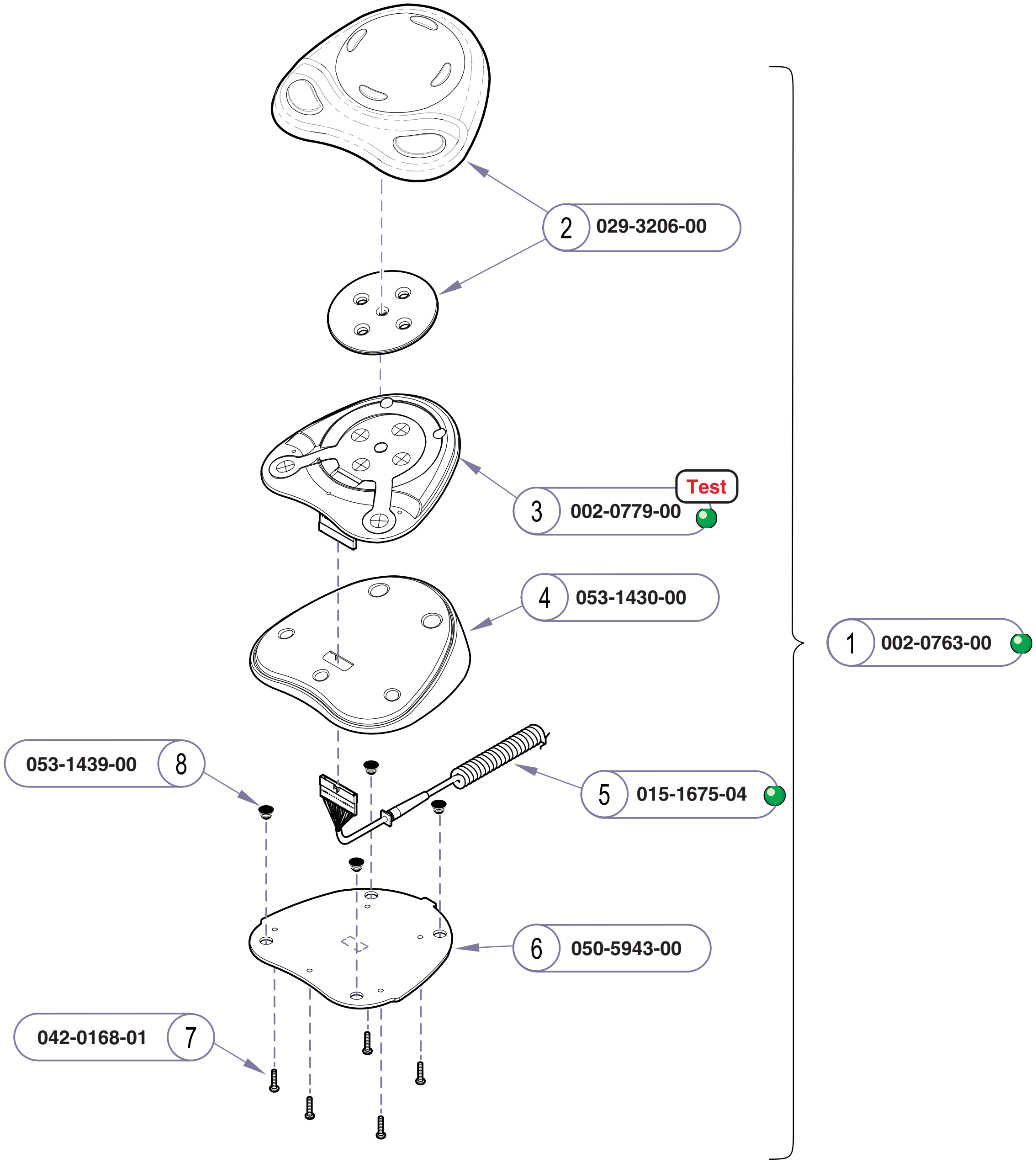
Refer To: **Go To Page:**
Foot Control Test - *223/623* B-7


2 029-3206-00
3 002-0779-00
Test
4 053-1430-00
1 002-0763-00
053-1439-00 8
5 015-1675-04
6 050-5943-00
042-0168-01 7

MA676400i

Item	Description	Qty.
1	Foot Control Assembly *(incl. items 2 thru 8)*	1
2	• Keypad	1
3	• Switch Membrane Assembly	1
4	• Base	1
5	• Cord	1
6	• Base Plate	1
7	• Screw	5
8	• Stem Bumper	4

Always Specify Model & Serial Number

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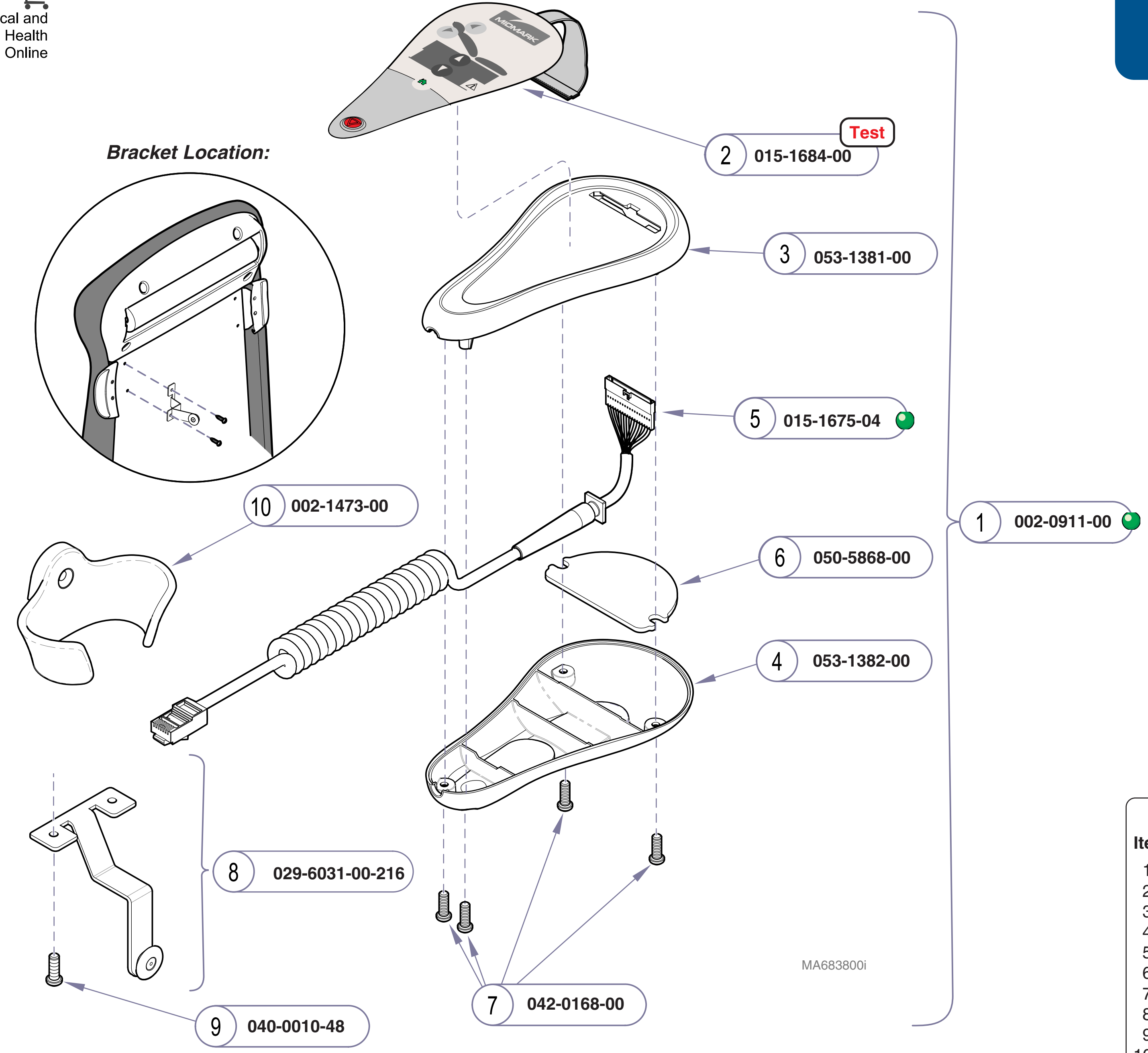
Refer To: **Go To Page:**
Hand Control Test - *223/623* B-7


Bracket Location:
2 015-1684-00 Test
3 053-1381-00
5 015-1675-04
10 002-1473-00
1 002-0911-00
6 050-5868-00
4 053-1382-00
8 029-6031-00-216
9 040-0010-48
7 042-0168-00
MA683800i

Item	Description	Qty.
1	Hand Control Assy. *(incl. items 2 thru 10)*:	
2	• Touch Pad	
3	• Top Housing	1
4	• Bottom Housing	1
5	• Retractable Cord Assembly	1
6	• Hand Control Weight	1
7	• Screw *(3.5 x 10)*	4
8	• Mounting Bracket *(incl. item 9)*	1
9	• • Screw	2
10	• Hand Control Holster	1

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***623*** ***(-001 thru -006)*** *All*	***223*** ***(-001 thru -014) [Optional]*** *All*

Hand Control & Mounting Bracket

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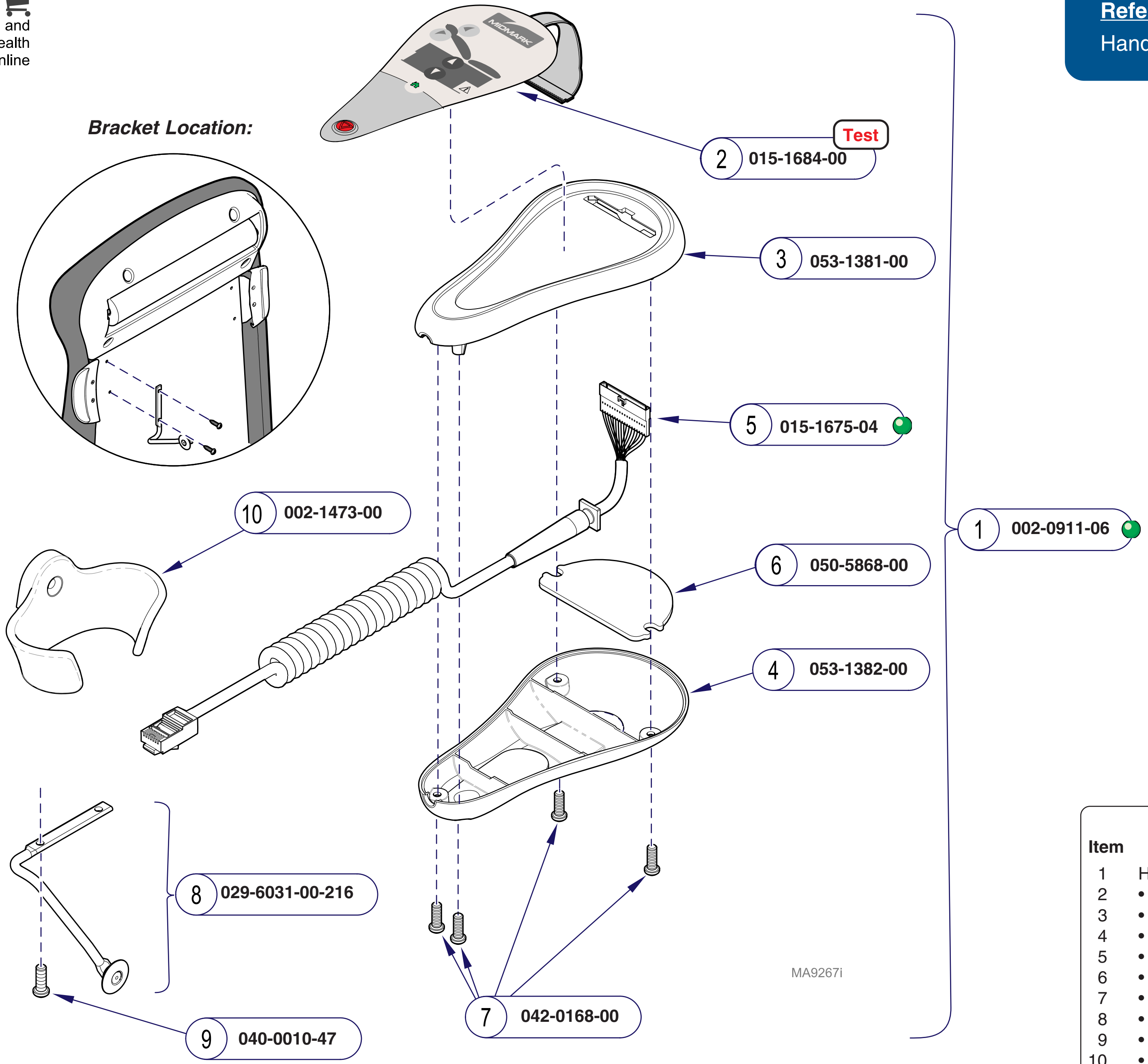
Refer To: **Go To Page:**
Hand Control Test - *223/623* B-7


Bracket Location:
Test
2 015-1684-00
3 053-1381-00
5 015-1675-04
10 002-1473-00
1 002-0911-06
6 050-5868-00
4 053-1382-00
8 029-6031-00-216
9 040-0010-47
7 042-0168-00
MA9267i

Item	Description	Qty.
1	Hand Control Assy. *(incl. items 2 thru 10)*:	
2	• Touch Pad	
3	• Top Housing	1
4	• Bottom Housing	1
5	• Retractable Cord Assembly	1
6	• Hand Control Weight	1
7	• Screw *(3.5 x 10)*	4
8	• Mounting Bracket *(incl. item 9)*	1
9	• • Screw	2
10	• Hand Control Holster	1

Always Specify Model & Serial Number

Models: *Serial Numbers:*	***623*** ***(-007 thru -011)*** *All*	***223*** ***(-015 & -016) [Optional]*** *All*

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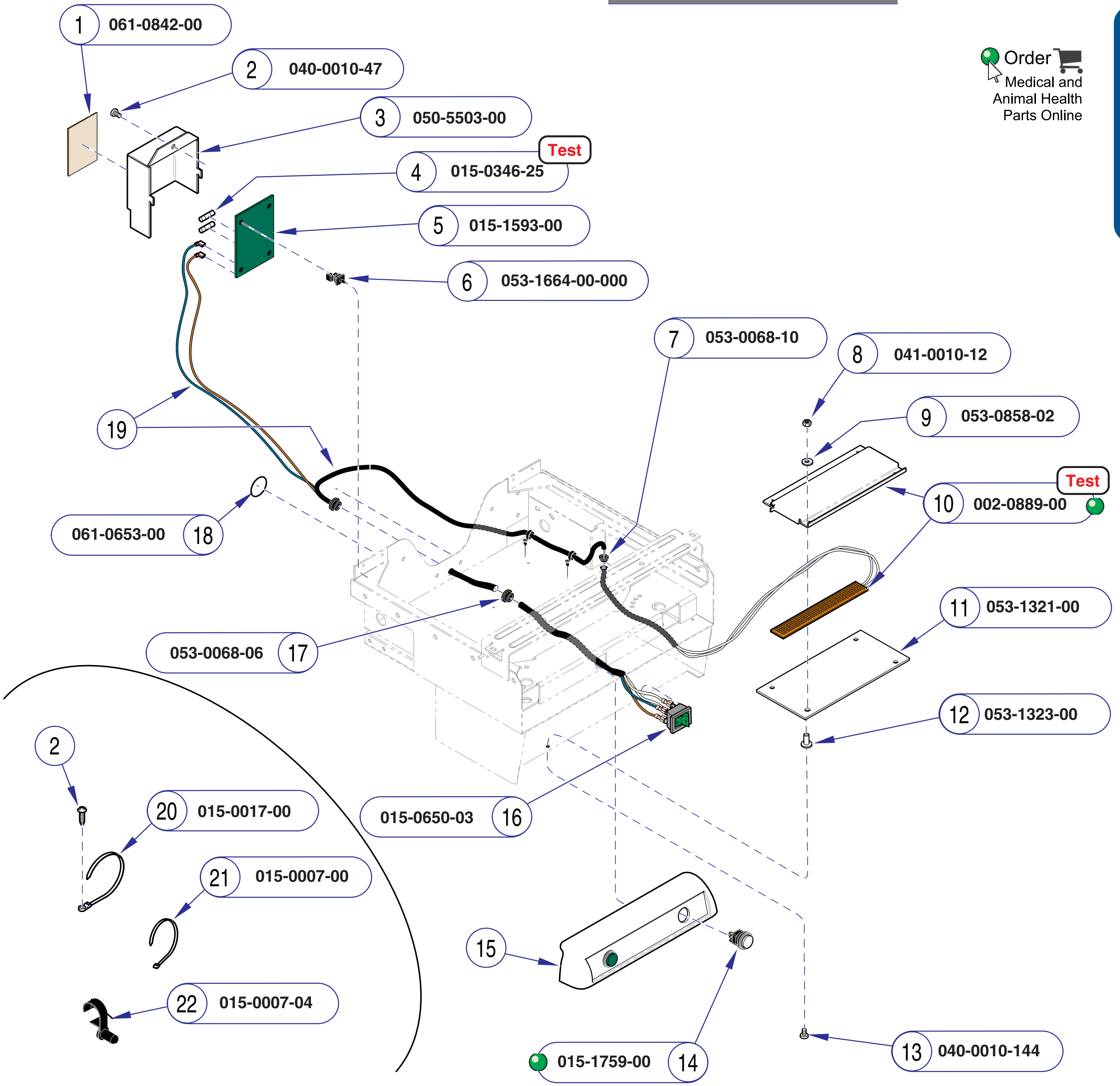
Fuse Test B-3
Drawer Heater System Test....... B-25
Section D - Wiring Diagrams D-1
Midmark Upperwrap
& Footrest Shelf E-17


1 061-0842-00
2 040-0010-47
3 050-5503-00
4 015-0346-25 Test
5 015-1593-00
6 053-1664-00-000
7 053-0068-10
8 041-0010-12
9 053-0858-02
10 002-0889-00 Test
11 053-1321-00
12 053-1323-00
13 040-0010-144
14 015-1759-00
15
16 015-0650-03
17 053-0068-06
18 061-0653-00
19
20 015-0017-00
21 015-0007-00
22 015-0007-04
2
MA611104i

Item	Description	Qty.
1	Fuse Replacement Label	1
2	Screw *(#10-24 x .37")*	1
3	Distribution Board Cover	1
4	Fuse *(800 mA, 250V, Slo-Blo, 5 x 20mm)*	2
5	Distribution Board	1
6	PC Board Standoff	4
7	Snap Bushing	1
8	Nut *(#10-32)*	4
9	Nylon Washer	4
10	Heater Plate Assembly	1
11	Heater Insulation	1
12	Nylon Shoulder Washer	4
13	Screw *(#10-32 x .5")*	1
14	Drawer Htr. Switch / Harness *(622/623)*	1
15	Refer to: *"Midmark Upperwrap & Footrest Shelf"*	Ref
16	Drawer Heater Switch *(222/223)*	1
17	Snap Bushing	2
18	Ground Label	1
19	Refer to: *Section D - Wiring Diagrams*	Ref
20	Cable Tie (w/ screw hole)	2
21	Cable Tie	1
22	Wrap-N-Tap	8

Always Specify Model & Serial Number

Models: Serial Numbers:	**222** *(-003 /-004 /-007 /-008 /-010)* *All*	**223** *(-003 /-004 /-007 /-008 /-010)* *All*	**622** *(-002 & -004)* *All*	**623** *(-002 & -004)* *All*

Drawer Heater System

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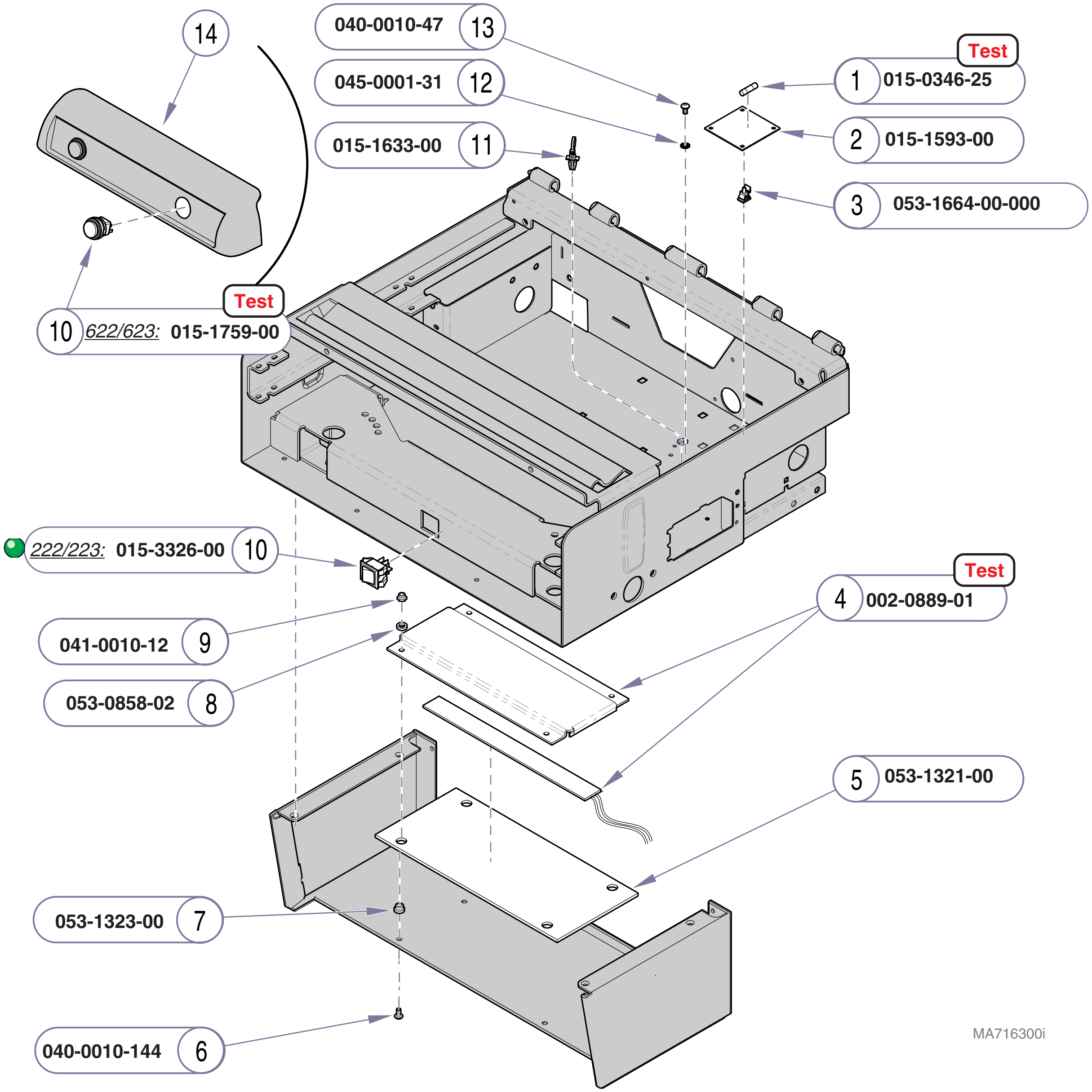
Fuse Test B-3
Drawer Heater System Test B-25
Section D - Wiring Diagrams D-1
Midmark Upperwrap
& Footrest Shelf E-17.1


14
040-0010-47 13
045-0001-31 12
015-1633-00 11
Test
1 015-0346-25
2 015-1593-00
3 053-1664-00-000
Test
10 622/623: 015-1759-00
222/223: 015-3326-00 10
Test
4 002-0889-01
041-0010-12 9
053-0858-02 8
5 053-1321-00
053-1323-00 7
040-0010-144 6
MA716300i

Item	Description	Qty.
1	• Fuse .... *(800 mA, 250V, Slo-Blo, 5 x 20mm)*	2
2	• Distribution Board	1
3	• PC Board Standoff	4
4	• Heater Plate Assembly	1
5	• Heater Insulation	1
6	• Screw *(10-32x 1/2")*	4
7	• Nylon Shoulder Washer	4
8	• Nylon Washer	4
9	• Nylon Nut	4
10	• Drawer Heater Switch with Harness	1
11	• Wrap-N-Tap	3
12	• Lockwasher *(#10)*	1
13	• Screw *(#10-24 x 3/8")*	1
14	Refer to: *Midmark Upperwrap & Footrest Shelf"*	Ref

Always Specify Model & Serial Number

Drawer Heater System

Models: *Serial Numbers:*	***222*** *(-016)* *All*	***223*** *(-016)* *All*	***622*** *(-008)* *All*	***623*** *(-008 /-010 /-011)* *All*

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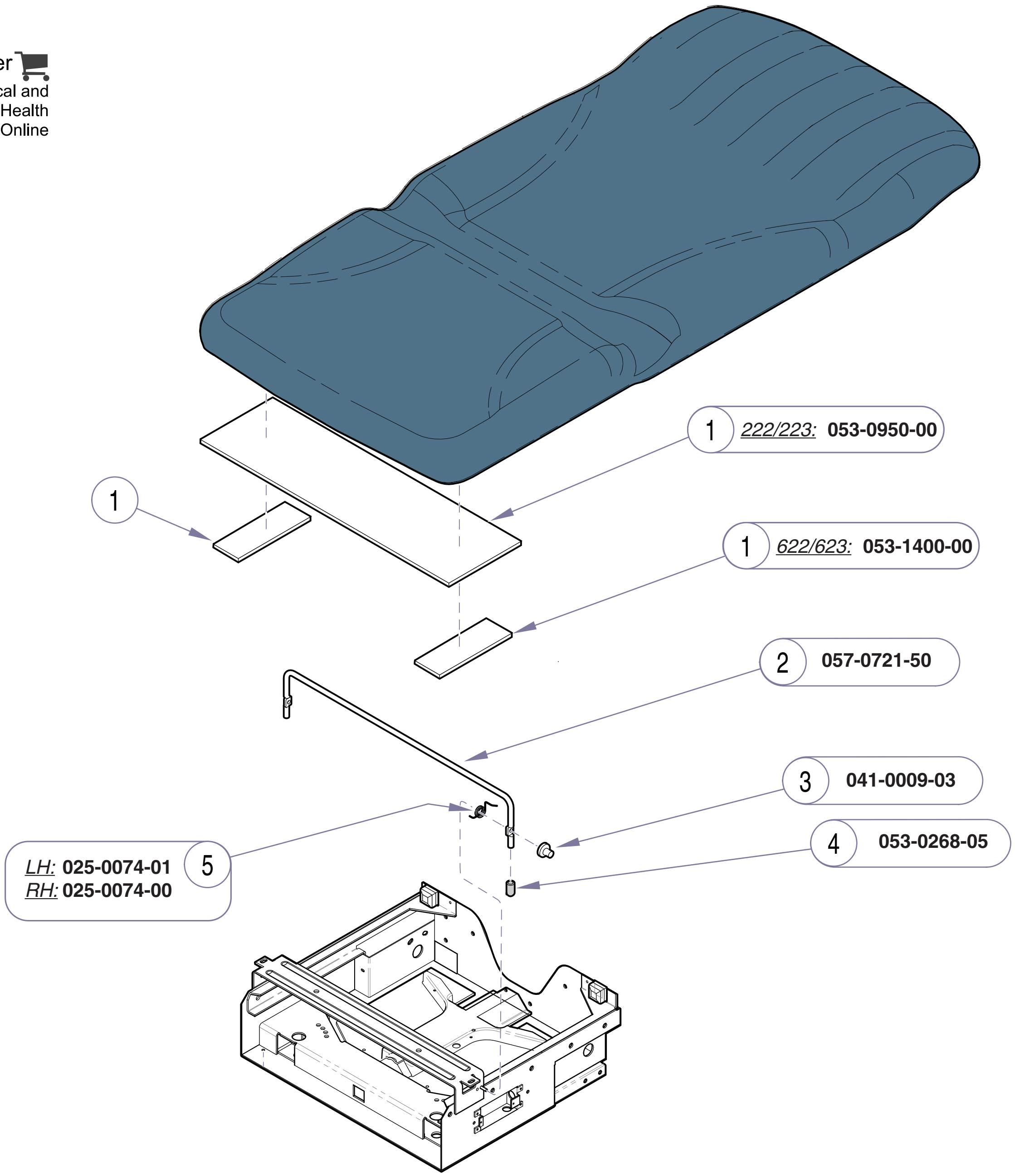
1 *222/223:* 053-0950-00
1
1 *622/623:* 053-1400-00
2 057-0721-50
3 041-0009-03
4 053-0268-05
LH: 025-0074-01
RH: 025-0074-00
5
MA612201i

Item	Description	Qty.
1	• Scuff Plate	1 / 2
2	• Pelvic Lift	1
3	• Push Nut	2
4	• Vinyl End Cap	2
5	• Pelvic Lift Spring (LH shown)	2

Always Specify Model & Serial Number

Models: Serial Numbers:	**222** **(-003 /-004 /-007 thru -010)** All	**223** **(-003 /-004 /-007 thru -010)** All	**622** **(-002 /-003 /-004 /-006)** All	**622** **(-002 /-003 /-004 /-006)** All

Pelvic Tilt

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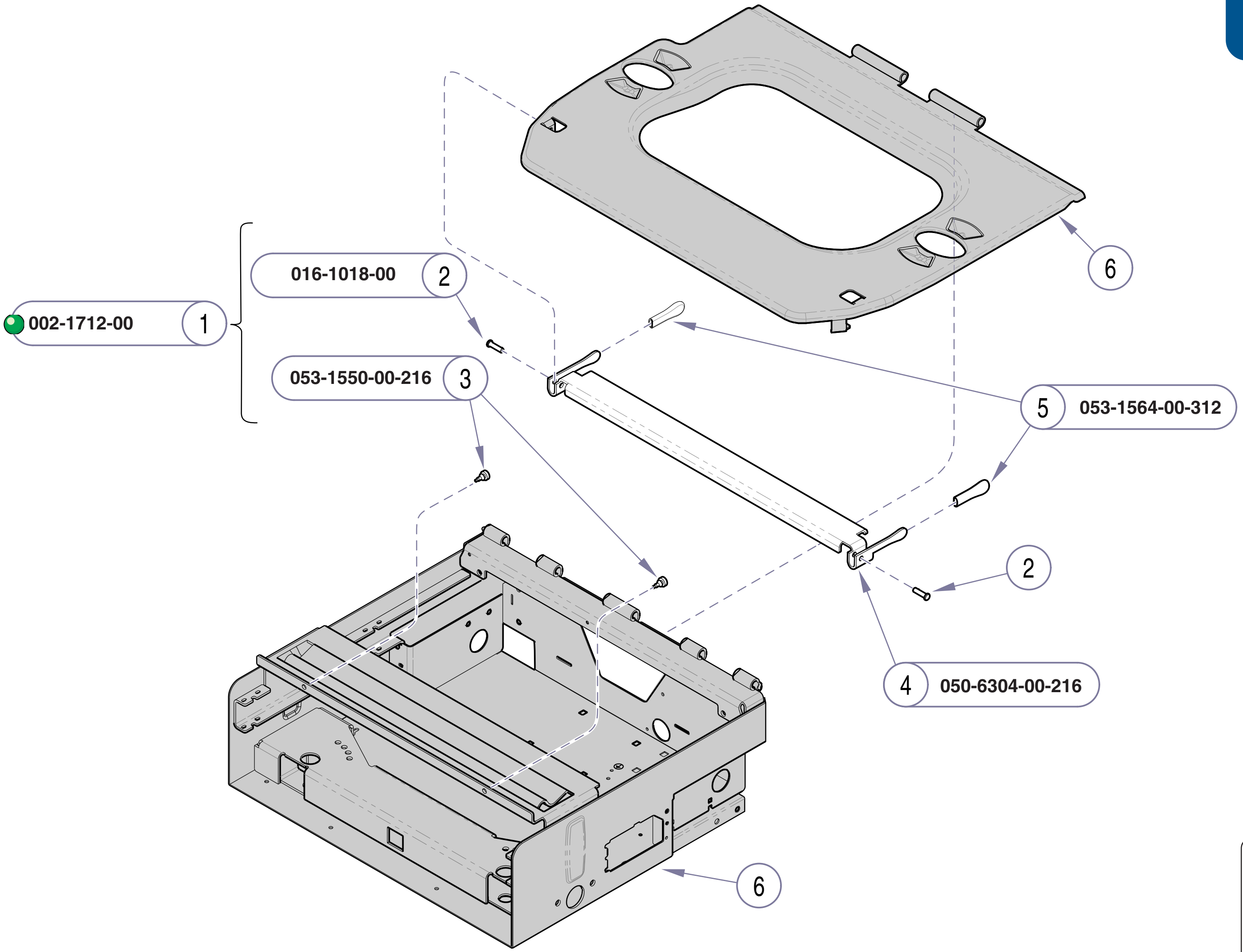
Upperwrap & Footrest Shelf:
Ritter models E-16.2
Midmark models E-17.1


002-1712-00
1
016-1018-00
2
053-1550-00-216
3
6
5
053-1564-00-312
2
4
050-6304-00-216
6

MA716200i

Item	Description	Qty.
1	Pelvic Tilt Assembly *(includes items 2 thru 5)*	1
2	• Pivot Pin	2
3	• Bumper	2
4	• Bracket	1
5	• Handle	2
6	Refer to: *"Upperwrap & Footrest Shelf"* ...	Ref

Always Specify Model & Serial Number

Pelvic Tilt

Models: *Serial Numbers:*	***222*** *(-016 & -017)* *All*	***223*** *(-016)* *All*	***622*** *(-008)* *All*	***623*** *(-008 thru -011)* *All*

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Refer To: **Go To Page:**

Uph. Heater System Test B-31

Upholstery - Midmark:

Premium E-8*

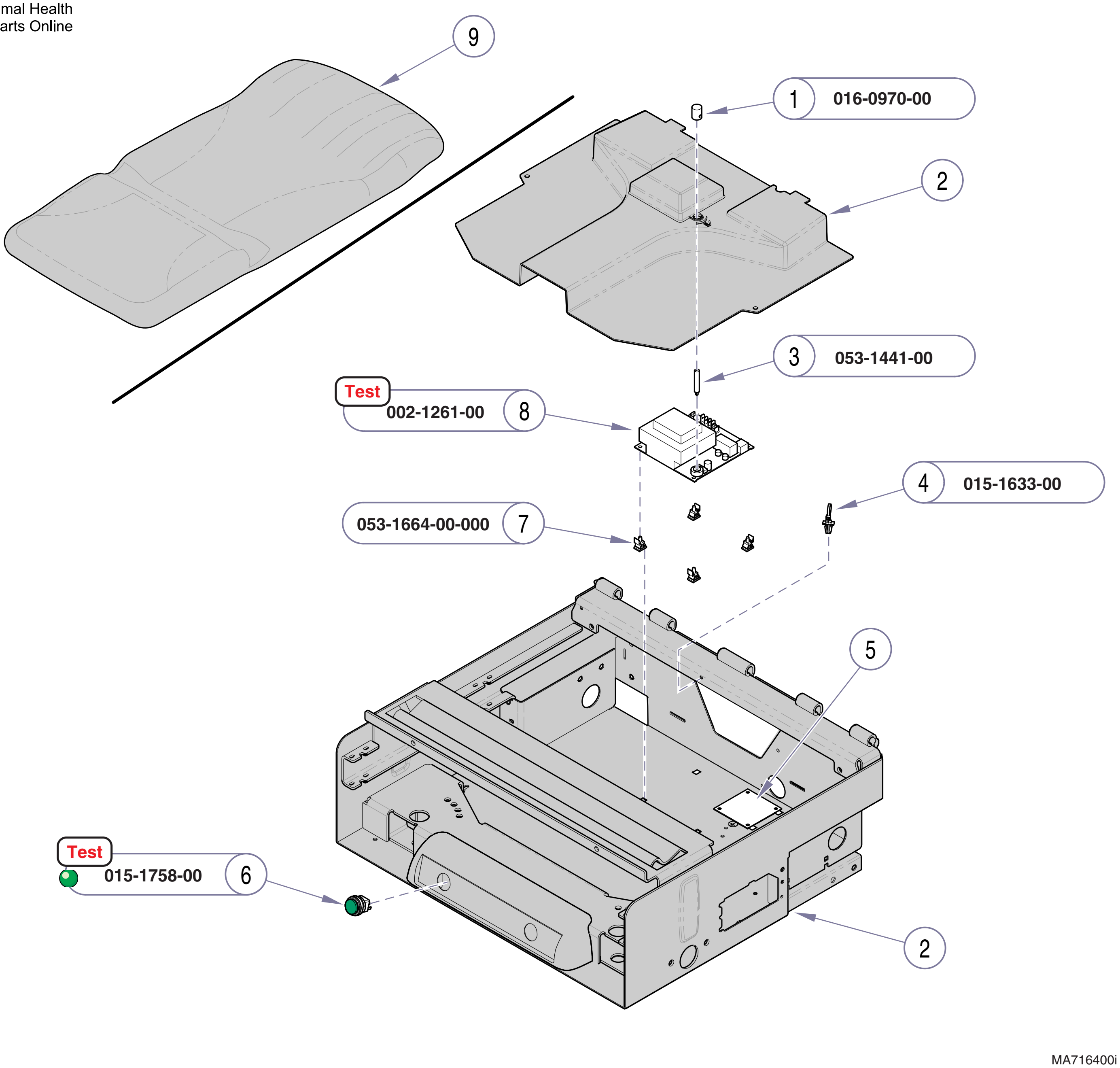
Ultra-Premium E-9*

Midmark Upperwrap

& Footrest Shelf E-17*

Drawer Heater System E-31*

** multiple pages due to model / serial # break*


9
1 016-0970-00
2
3 053-1441-00
Test
002-1261-00 8
4 015-1633-00
053-1664-00-000 7
5
Test
015-1758-00 6
2
MA716400i

Item	Description	Qty.
1	Adjustment Knob	1
2	Refer to: *"Midmark Upperwrap & Footrest Shelf"*	Ref
3	Adjustment Shaft	1
4	Wrap-n-Tap Wire Tire	3
5	Refer to: *"Drawer Heater System"*	Ref.
6	Upholstery Heater Switch *(green)*	1
7	PC Board Standoffs	4
8	Upholstery Heater PC Board Kit *(includes item 2)*	1
9	Refer to: *"Upholsery - Midmark"*	Ref

Always Specify Model & Serial Number

Models: Serial Numbers:	***622*** *(-002 /-004 /-006 /-008)* *V2200 thru V857486*	***623*** *(-002 /-004 /-006 /-008 /-010)* *V2200 thru V857486*

Upholstery Heater Components

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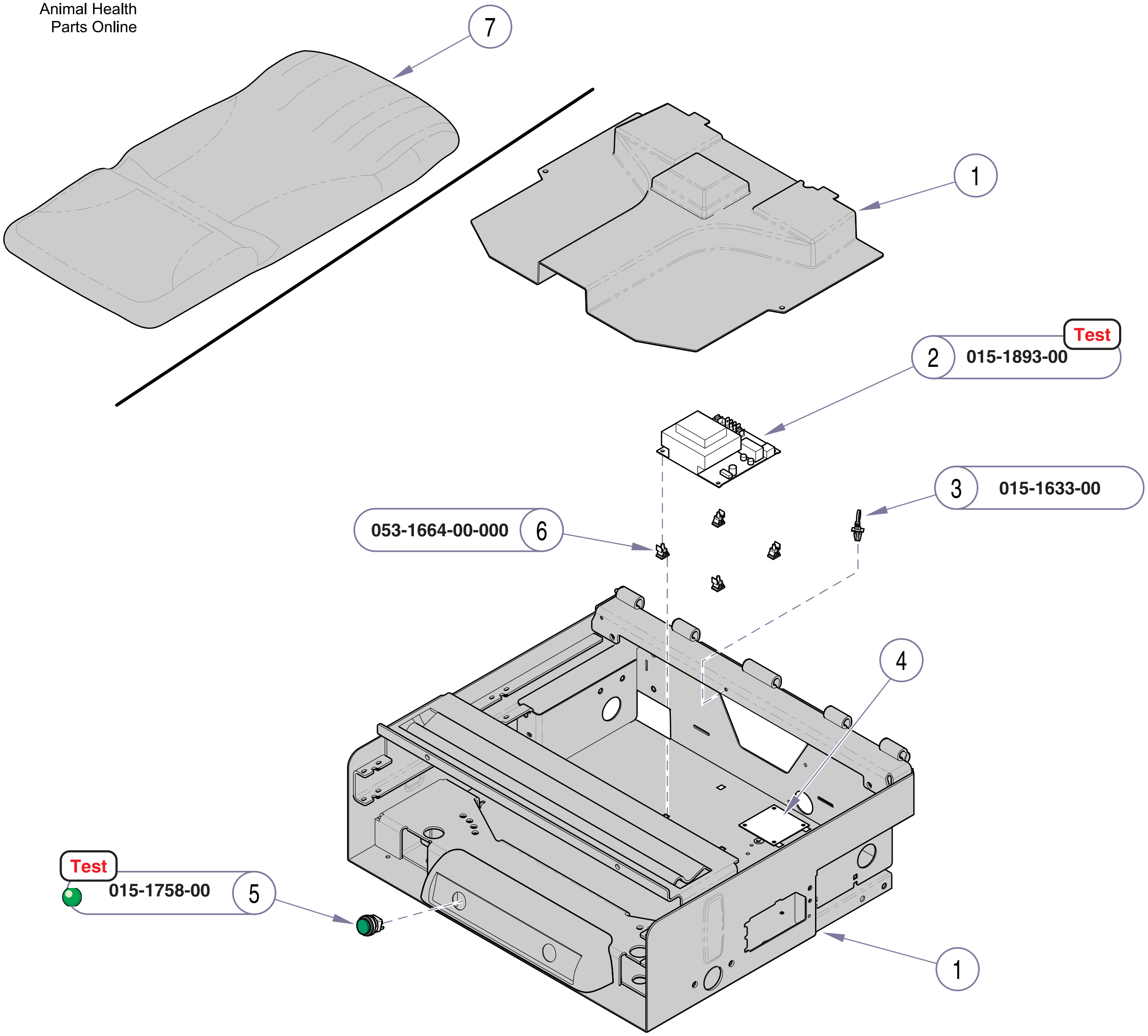
Uph. Heater System Test B-31
Upholstery - Midmark:
Premium E-8*
Ultra-Premium E-9*
Midmark Upperwrap
& Footrest Shelf E-17*
Drawer Heater System E-31*

** multiple pages due to model / serial # break*



MA716401i

Item	Description	Qty.
1	Refer to: *"Midmark Upperwrap & Footrest Shelf"*	Ref
2	Upholsery Heater PC Board	1
3	Wrap-n-Tap Wire Tire	3
4	Refer to: *"Drawer Heater System"*	Ref.
5	Upholstery Heater Switch *(green)*	1
6	PC Board Standoffs	4
7	Refer to: *"Upholstery - Midmark"*	Ref

Always Specify Model & Serial Number

Upholstery Heater Components

Models:	**622** *(-002 /-004 /-006 /-008)*	**623** *(-002 /-004 /-006 /-008 /-010)*
Serial Numbers:	*V857487 thru present*	*V857487 thru present*

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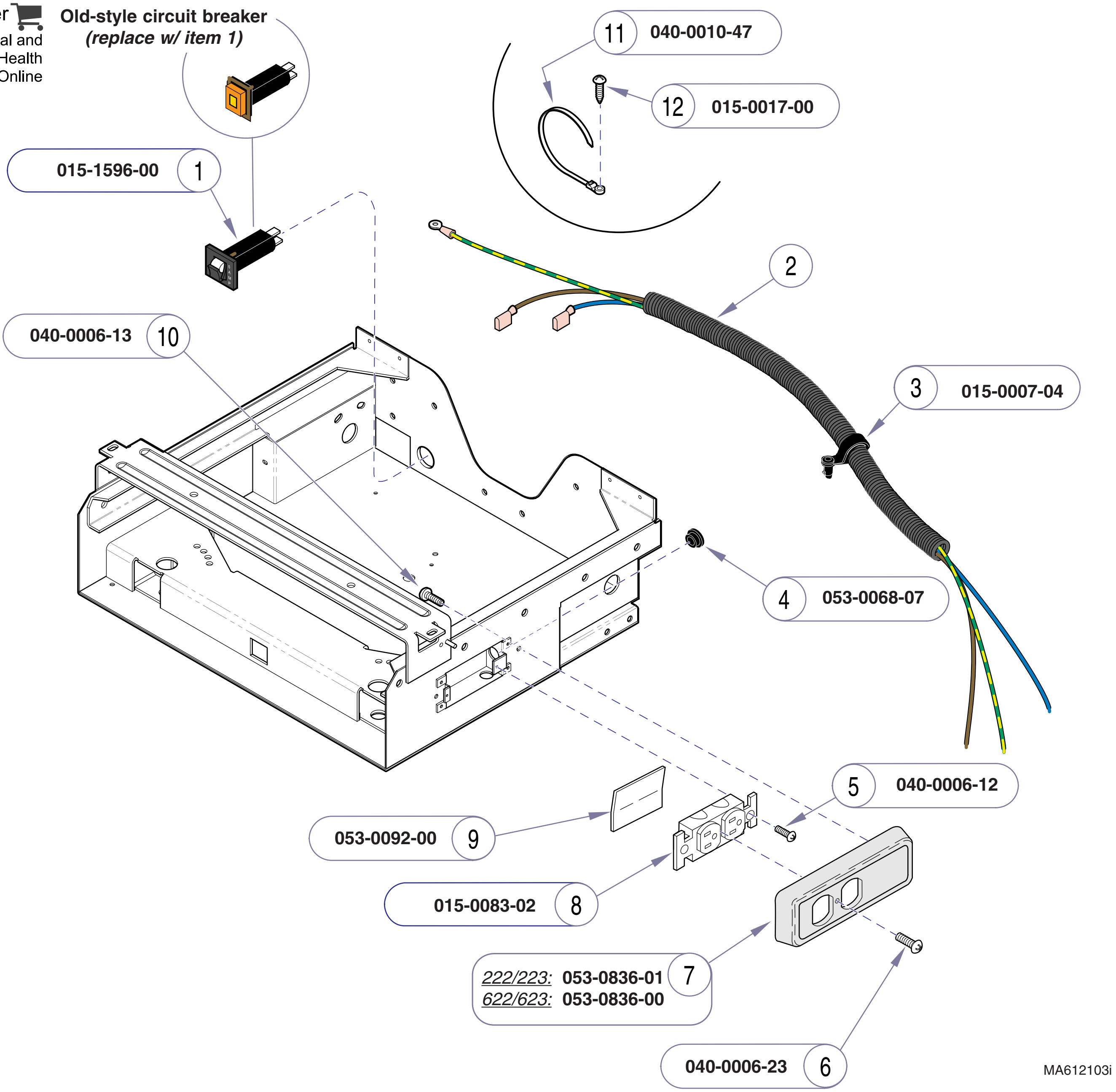
Wiring Diagrams D-1


Old-style circuit breaker
(replace w/ item 1)
11 040-0010-47
12 015-0017-00
015-1596-00 1
2
040-0006-13 10
3 015-0007-04
4 053-0068-07
5 040-0006-12
053-0092-00 9
015-0083-02 8
222/223: 053-0836-01 7
622/623: 053-0836-00
040-0006-23 6
MA612103i

Item	Description	Qty.
1	Circuit Breaker* .... **not used on Canadian models:* *222 / 223 (-011 thru -014)* *623 / 623 (-005 & -006)*	1
2	Refer to: *Section D - Wiring Diagrams*	Ref
3	Wrap-N-Tap	3
4	Snap Bushing	1
5	Screw	2
6	Flat Head Screw *(#6-32 x 1")*	1
7	Receptacle Cover	1
8	Duplex Receptacle	1
9	Insulator	1
10	Screw *(#6-32)*..	2
11	Cable Tie *(w/screw hole)*	4
12	Screw *(#10-24 x .37")*	4

Always Specify Model & Serial Number

Table Receptacle System

Models:	***222***	***223***	***622***	***623***
Serial Numbers:	***(-002 /-004 /-006 /-008)*** ***(-011 thru -014)*** *All*	***(-002 /-004 /-006 /-008)*** ***(-011 thru -014)*** *All*	***(-001 /-002 /-005 /-006)*** *All*	***(-001 /-002 /-005 /-006)*** *All*

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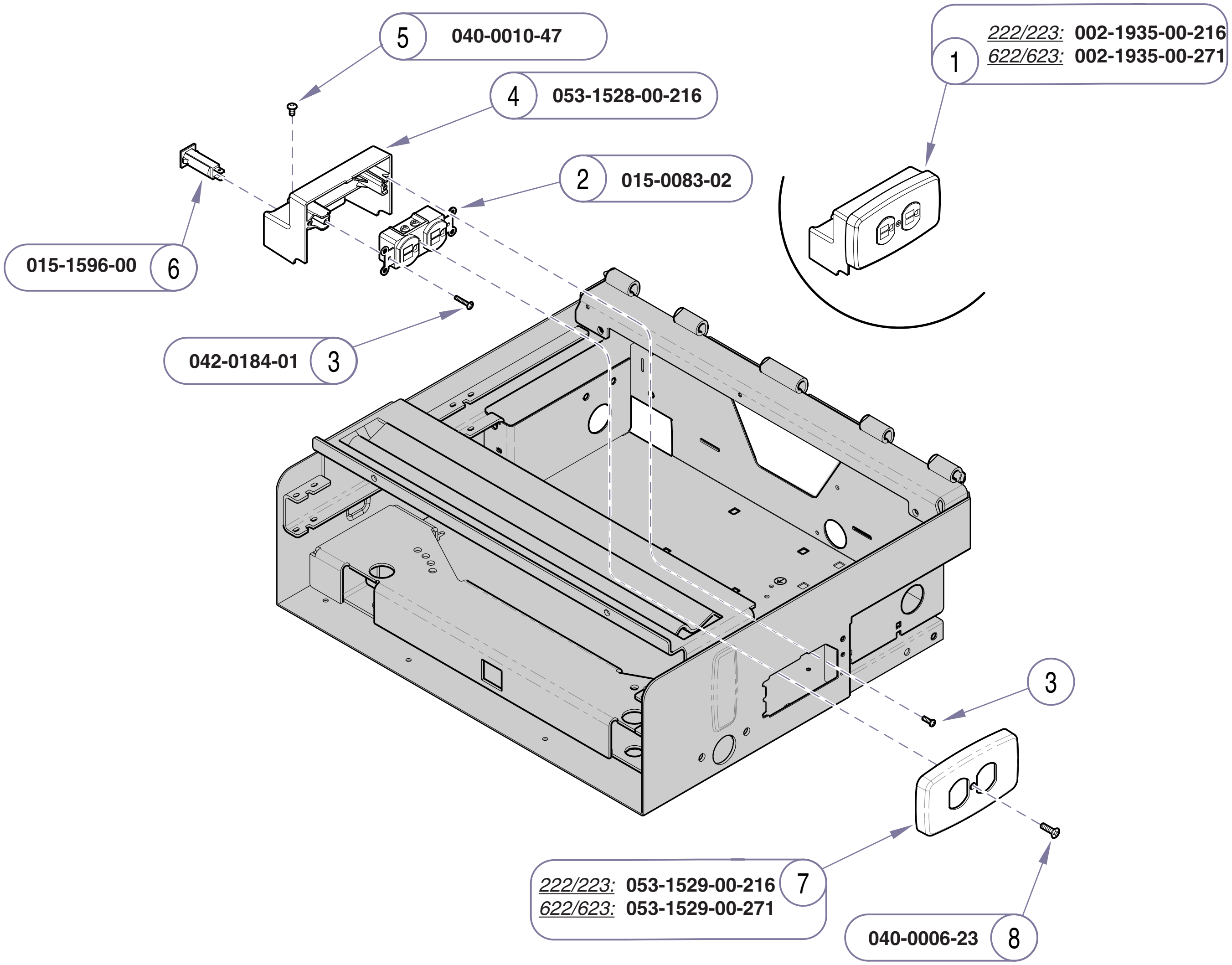
5 040-0010-47
4 053-1528-00-216
2 015-0083-02
015-1596-00 6
042-0184-01 3
1 222/223: 002-1935-00-216
622/623: 002-1935-00-271
3
222/223: 053-1529-00-216
622/623: 053-1529-00-271 7
040-0006-23 8
MA716100i

Item	Description	Qty.
1	Table Receptacle Assembly *(includes items 2 thru 9)*	1
2	• Duplex Receptacle	1
3	• Screw *(.138-32 x 1/2")*	4
4	• Circuit Breaker Housing	1
5	• Screw *(#10-24 x 3/8")*	1
6	• Circuit Breaker *(5 amp)*	2
7	• Receptacle Cover	1
8	• Screw *(#6-32 x 1/2")*	1

Always Specify Model & Serial Number

Models: Serial Numbers:	**222** (-015 & -016) All	**223** (-015 & -016) All	**622** (-007 & -008) All	**623** (-007 & -008) All

Table Receptacle System

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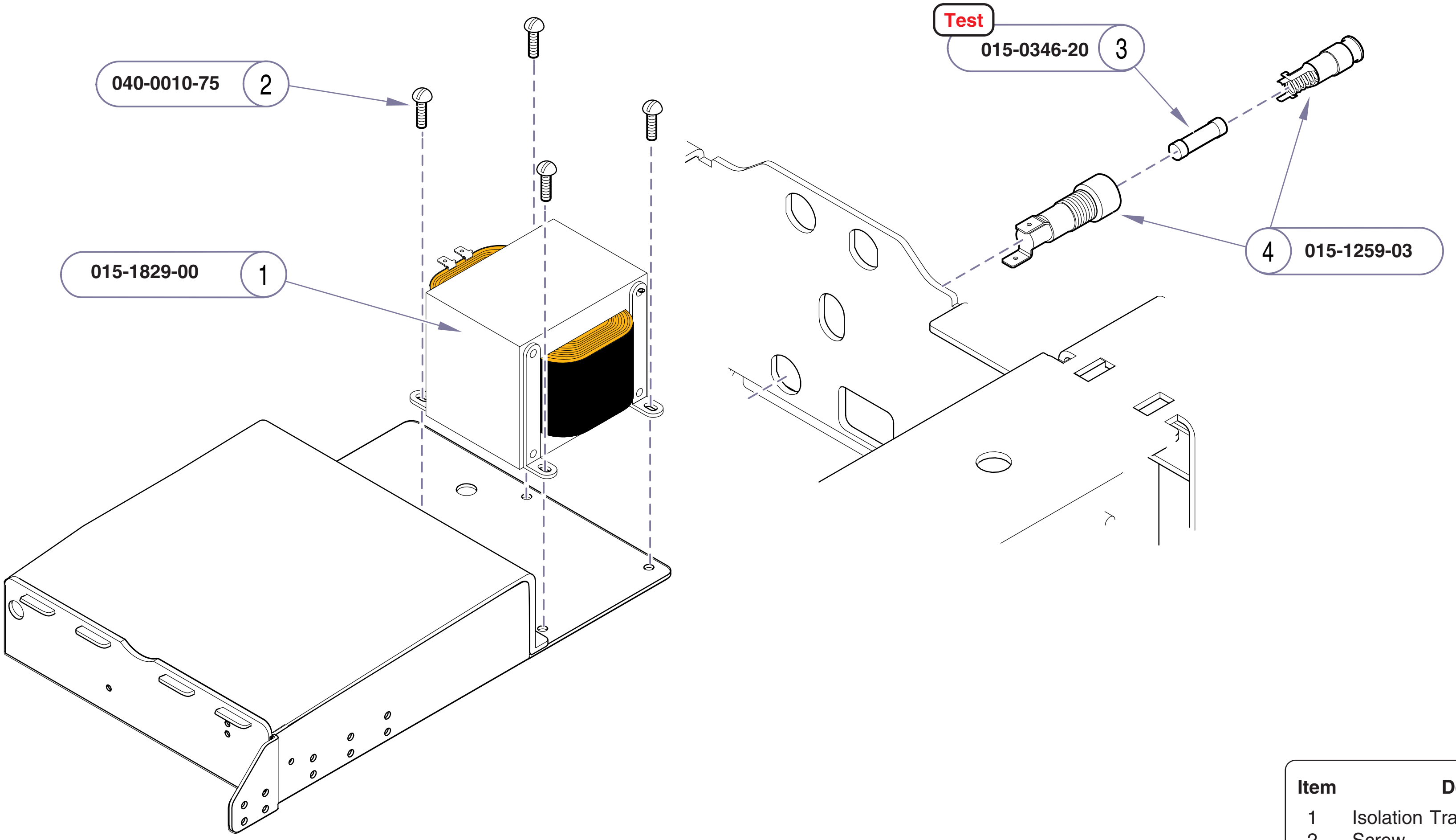
Fuse Test B-3


Test
015-0346-20 3
040-0010-75 2
015-1829-00 1
4 015-1259-03

MA682100i

Item	Description	Qty.
1	Isolation Transformer	1
2	Screw	4
3	Fuse *(6.3A, 250V, Slo-Blo, 5 x 20 mm)*	1
4	Fuse Holder	2

Always Specify Model & Serial Number

Canadian Electrical System

Models: *Serial Numbers:*	***222*** *(-011 thru -014)* *All*	***223*** *(-011 thru -014)* *All*	***622*** *(-005 & -006)* *All*	***623*** *(-005 & -006)* *All*

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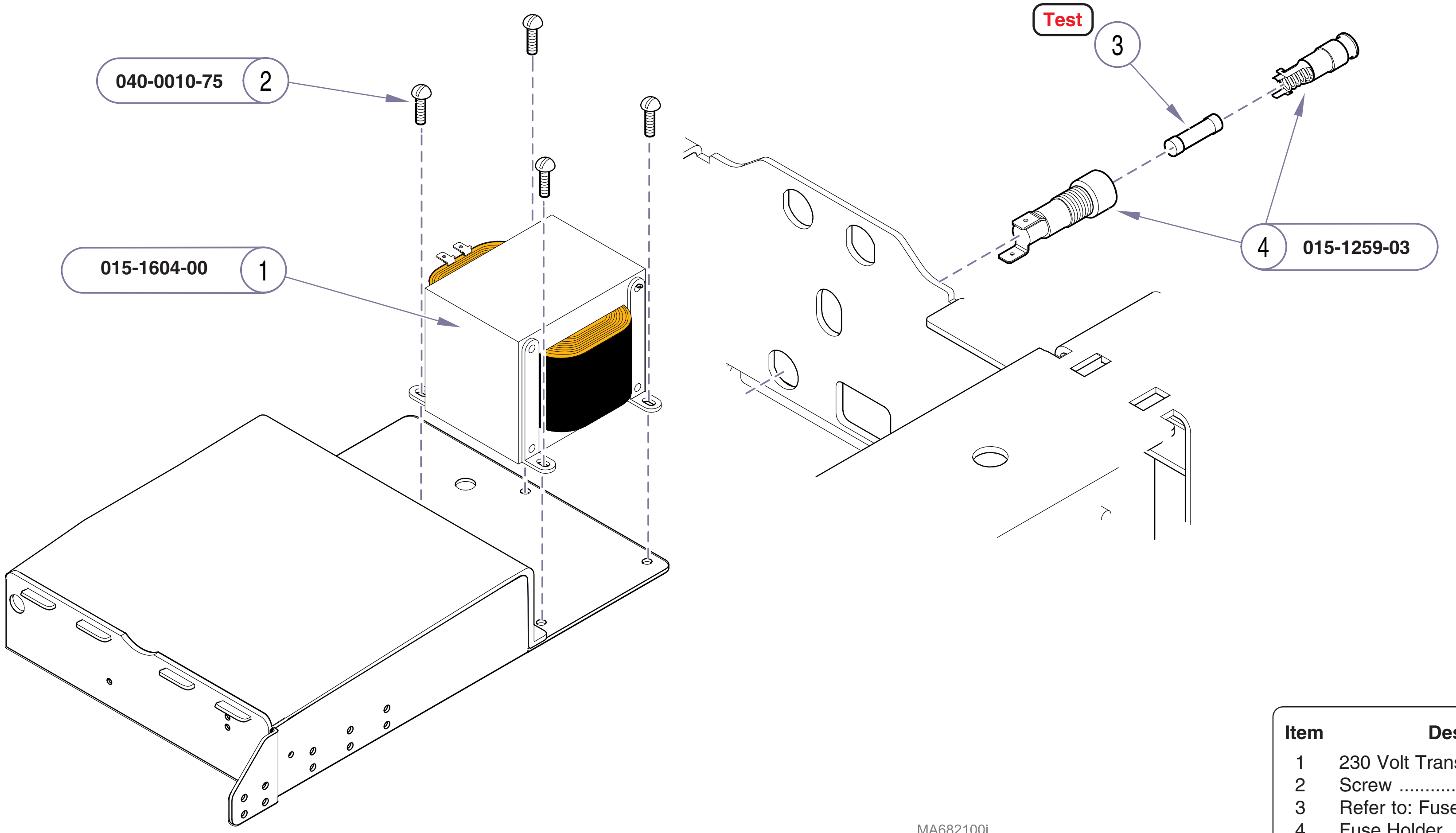
Refer To: **Go To Page:**
Fuse Test B-3


Test
3
040-0010-75
2
015-1604-00
1
4
015-1259-03
MA682100i

Item	Description	Qty.
1	230 Volt Transformer	1
2	Screw	4
3	Refer to: Fuses	2
4	Fuse Holder	2

Always Specify Model & Serial Number

Models: Serial Numbers:	**222** (-009 /-010 /-017) All	**223** (-009 & -010) All	**622** (-003 & -004) All	**623** (-003 /-004 /-009 /-010 /-011) All

230 Volt Electrical System

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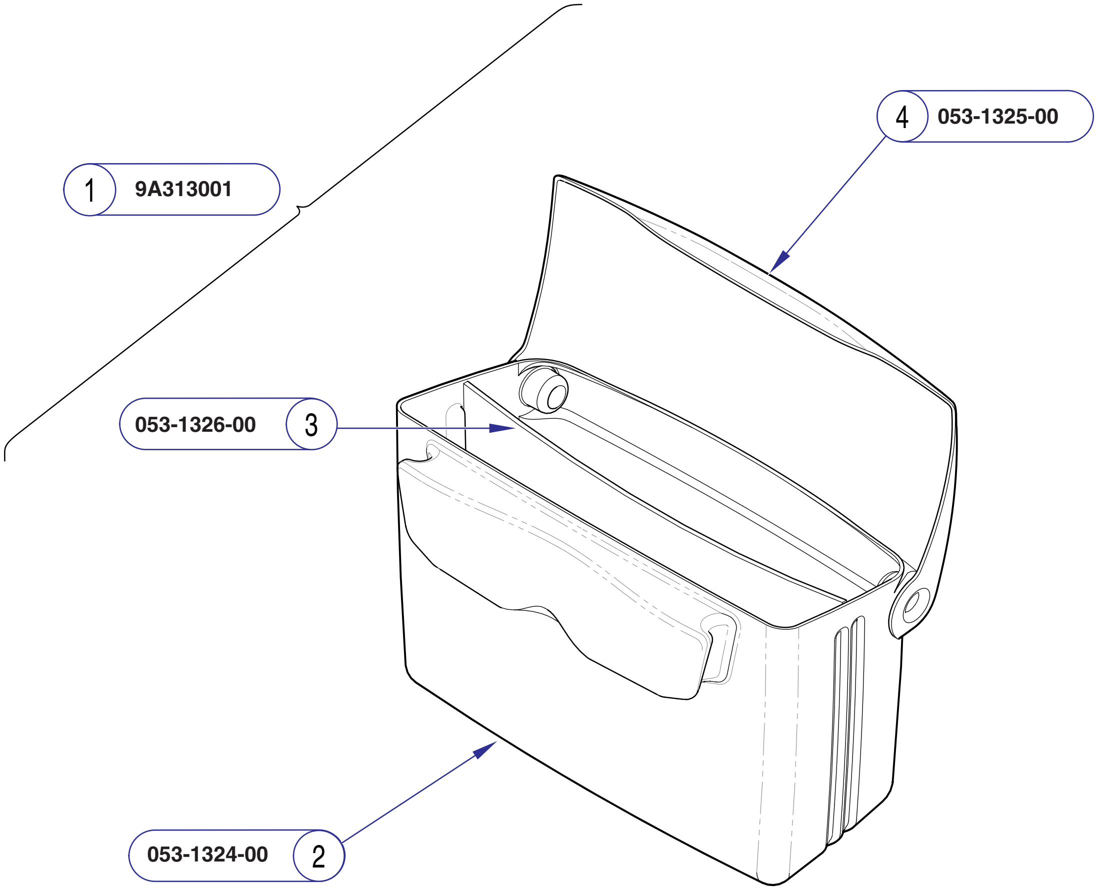
1 9A313001
4 053-1325-00
053-1326-00 3
053-1324-00 2
MA612900i

Item	Description	Qty.
1	Storage Pod Assembly .... *(includes items 2 thru 4)*	1
2	• Storage Container	1
3	• Storage Divider	1
4	• Storage Container Lid	1

Always Specify Model & Serial Number

Storage Pod

Models: *Serial Numbers:*	***622** (all)* *All*	***623** (all)* *All*

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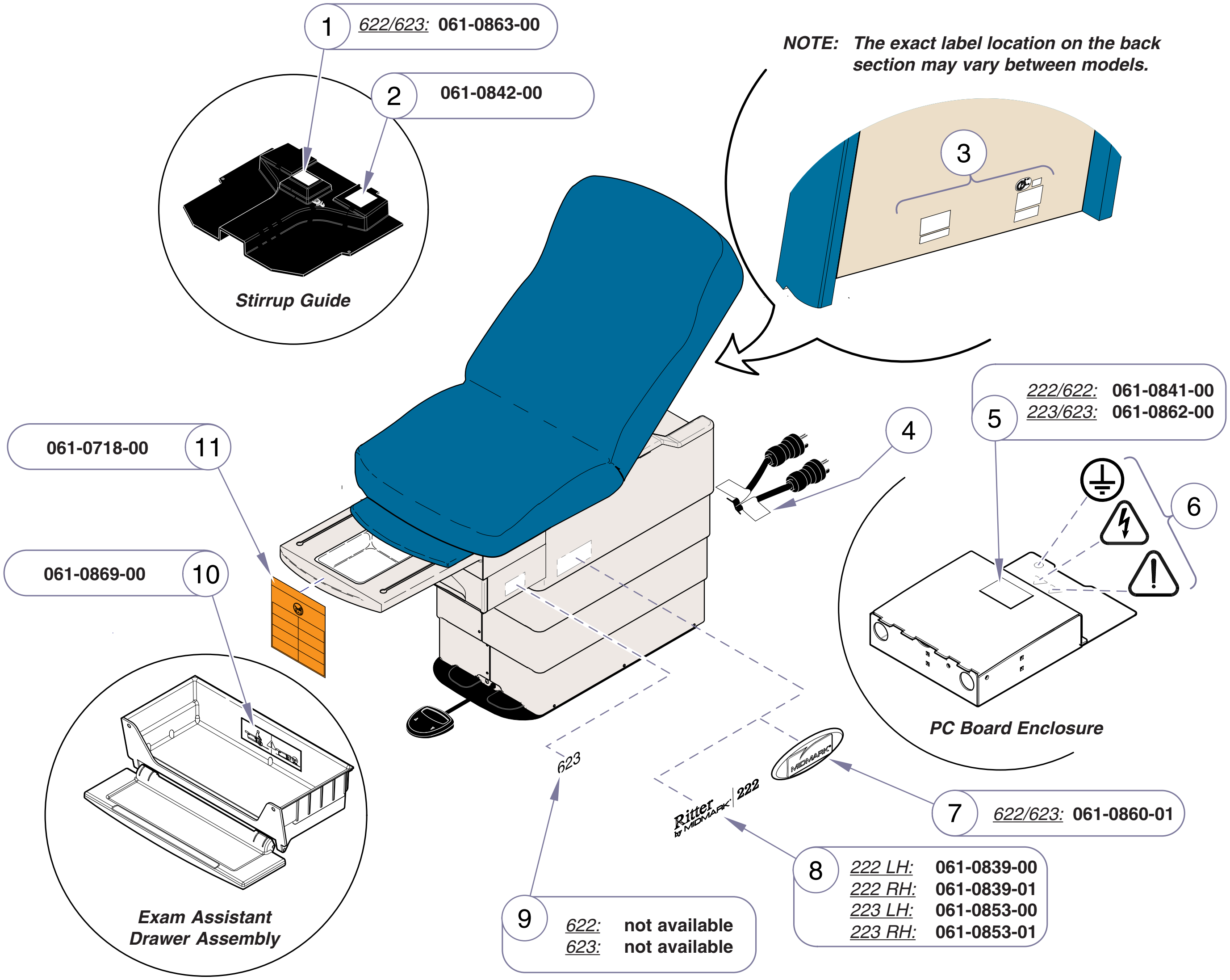
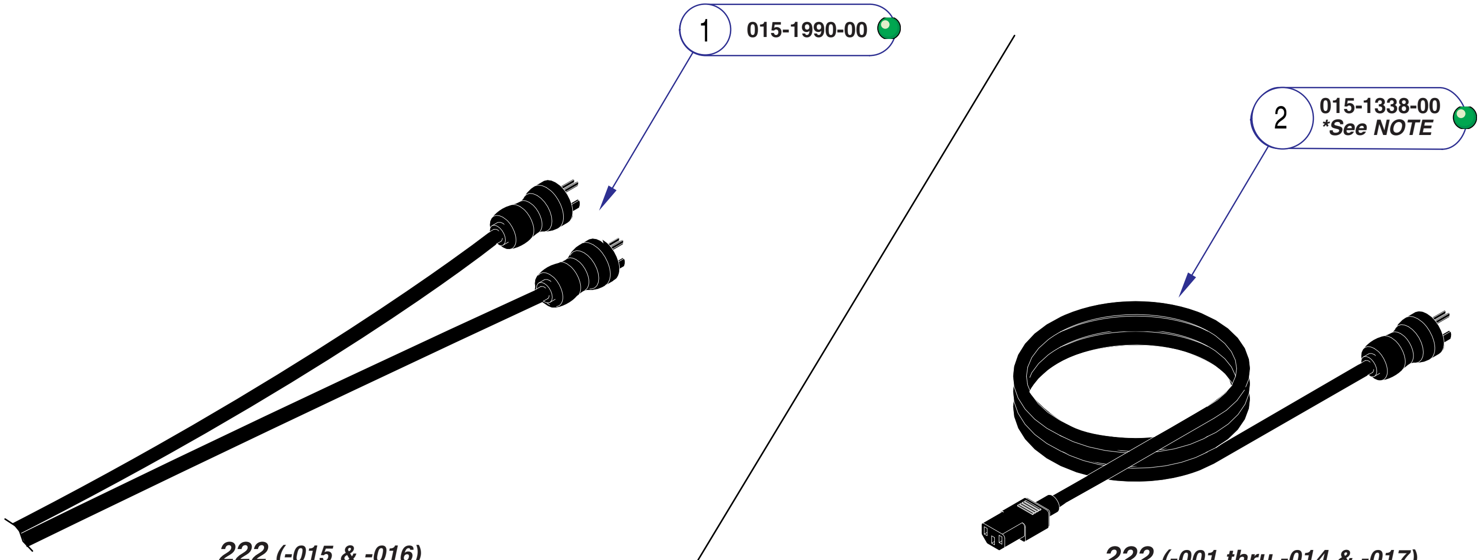

1
622/623: 061-0863-00
2
061-0842-00
Stirrup Guide
NOTE: The exact label location on the back section may vary between models.
3
4
5
222/622: 061-0841-00
223/623: 061-0862-00
6
PC Board Enclosure
7
622/623: 061-0860-01
8
222 LH: 061-0839-00
222 RH: 061-0839-01
223 LH: 061-0853-00
223 RH: 061-0853-01
9
622: not available
623: not available
623
Ritter by MIDMARK 222
MIDMARK
10
061-0869-00
11
061-0718-00
Exam Assistant
Drawer Assembly

MA730900i

Item	Description	Qty.
1	Fuse Label *(Uph. Htr. PC Board)*	1
2	Fuse Label *(Distribution Board)*	1
3	Regulatory Certification Label	1
	Duty Cycle Label	1
	Danger Label *(w/Table Receptacle only)*	1
	Patent Pending Label	1
	Model / Serial Number Label	1
	Patent Number Label	1
4	Power Cord Label	2
5	Fuse Label *(Main PC Board)*	1
6	Ground Label	1
	Dangerous Voltage Label	1
	Caution Label	1
7	Midmark Nameplate	2
8	Ritter Model Label *(LH shown)*	2
9	Midmark Model Label *(early models only)*	2
10	Exam Assistant Drawer Label	1
11	Stirrup Lifting Caution Label	1

Always Specify Model & Serial Number

Order Medical and Animal Health Parts Online



222 *(-015 & -016)*
223 *(-015 & -016)*

622 *(-007 & -008)*
623 *(-007 & -008)*

222 *(-001 thru -014 & -017)*
223 *(-001 thru -014)*

622 *(-001 thru -006)*
623 *(-001 thru -006, -009 thru -011)*

Item	Description	Qty.
1	Power Cord, Conjoined	1
2	Power Cord **NOTE: Export models, 622/623 (-003 /-004) require 9A152 International Cordsets.*	1

Always Specify Model & Serial Number

Power Cords

Models: ***All***
Serial Numbers: *All*

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If an error is found, please list the page and paragraph/figure in which the error was found along with a brief description of what the error is. If the correction to the error is known, please include that information also. If a change, addition, or deletion is being requested, please list the page and paragraph/figure needing the change, along with a brief description of how you feel the paragraph/figure should be changed.

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60 Vista Drive
Versailles, Ohio 45380
Fax: (937) 526-5542

Page Number	Paragraph/Figure	Description

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ATTENTION: CUSTOMER SERVICE DEPARTMENT

IMPORTANT NOTES:

1) ***Use this form for all non-warranty orders only***. *Warranty orders must be telephoned in (1-800-643-6275).*
2) *FAX number to send order to: 877-249-1793*
3) *All emergency orders must be received @ Midmark by 1:00 pm EST.*
4) *All underlined headings should be filled in prior to submittal.*

ADDITIONAL COMMENTS:

SERVICE PARTS FAX ORDERING FORM

(Do not tear out this page. Photo copy this page for use only.)

MIDMARK®

DATE: ____ / ____ / ________ **TIME:** ____________ am pm

METHOD OF SHIPMENT: ____________________

PRIORITY:

☐ **NON-EMERGENCY ORDER {to ship within 72 hours if part(s) are in stock.}**

☐ **EMERGENCY ORDER {to ship within 24 hours if part(s) are in stock.} [see note 3]**

DEALER P.O. #: ____________________

ACCOUNT #: ____________________

MODEL #:	**SERIAL #:**	**SALES ORDER #** (if applicable)

NAME: ____________________

ADDRESS: ____________________

CITY: ____________ **STATE:** ____ **ZIP:** ________

CONTACT: ____________________

PHONE: ____________________

FAX #: ____________________

SHIP TO: ____________________

LINE #	PART NUMBER	QTY.	DESCRIPTION	COLOR (if applicable)

CREDIT CARD INFORMATION

CARD TYPE ____________________ **CARD #**________-________-________-________ **EXP. DATE** ______ / ______ / ________

NAME ON CARD ____________________ **SIGNATURE**____________________

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Midmark Corporation
60 Vista Drive
P.O. Box 286
Versailles, OH 45380-0286
937-526-3662
Fax 937-526-5542
www.midmark.com

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